A Bibliography of Publications about the Julia programming language

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254
FAX: +1 801 581 4148

E-mail: beebe@math.utah.edu, beebe@acm.org,
beebe@computer.org (Internet)
WWW URL: https://www.math.utah.edu/~beebe/

13 May 2024
Version 1.42

Title word cross-reference

q [MSP+22].

-LSKUM [MSP+22].

0 [Fis19].

1 [Bät20]. **1.0** [Bal18, BS19, KS18, Kwo19b, Sen19]. **1.x** [Sal18]. **1014** [Bor21].

2 [PSK+24]. **2/3D** [PSK+24]. **20th** [KZL+20].

3-Level [VTCB23]. **3.0** [MGS+17]. **3D** [PSK+24].

5 [Dan18].

7th [BCD+20].

978 [Fis19]. **978-1-138-49998-0** [Fis19].

A64FX [GKC22]. **Abstraction** [PSS+15]. **AbstractSDRs** [LGGB21]. **Academia** [LDMG20]. **ACAS** [GM19]. **accelerated** [MSP+22]. **Accelerator** [SKG+18]. **accurate** [WLL+15]. **Acoustic** [GLB16]. **Across** [PSS+15]. **Ada** [Ver22]. **Adaptive** [KIT20]. **advanced** [SEK+13]. **age** [BCG+20]. **Agent** [RUHB19]. **Agent-Based** [RUHB19]. **AI** [AHG+20, Ede17]. **Algebra** [Bor18, OT14, PBB22, RPX+16]. **Algebraic** [BDF+16, Che21, OOBP15]. **algebras**

[SEK+13]. **Algorithm** [Bor21, Fro16, KSÇ+20, HMCG20, VRR+16, Bor21]. **Algorithms** [BJ18, DD15, GMP+20, SKG+18, BAJ19, KR23a]. **Aligator.jl** [HJK18a, HJK18b]. **alternative** [MSS+19]. **Amsterdam** [KZL+20]. **Analyses** [SS21]. **Analysis** [ABBR23, CGWL19, Kam23, KSÇ+20, LDMG20, GMO19, HTF17, KR23a, MSP+22, MVWL17, PKA+22, Sal18, SAD22]. **analytical** [She15]. **analytics** [SEK+13]. **Analyzer** [Spo16]. **Analyzing** [BB20]. **Angewandte** [Bät20]. **Ant** [CML+16]. **anwendungs** [Bät20]. **anwendungs-** [Bät20]. **AnyMOD.jl** [Gök21]. **API** [CSR+23, FSZD20]. **App** [AHG+20]. **Application** [DK20, Bät20, OOBP15]. **applications** [GMP+20, Kwo19b, PSN20]. **applied** [SRA+19, Bät20]. **Approach** [BEKS17, GM19, HVW+20, ABM20, BVM+17, Ede15a]. **approximation** [KR23a]. **apps** [Sal18]. **Architectures** [SBC+17, PSK+24]. **Arcs** [KN20]. **arithmetic** [Rou19]. **Array** [BCK+14]. **Art** [Car19]. **Artificial** [NK21]. **Automated** [PSN20, PF17]. **Automatic** [KN20, LFROF18]. **auxiliary** [Bag22]. **Average** [ABM19]. **Average-chain** [ABM19]. **avoiding** [PBC+21].

B [KR23b]. **B-series** [KR23b]. **Bad** [BDF+16]. **balance** [HTF17]. **Barrier** [LGGB21]. **Based** [EHO16, KSÇ+20, RUHB19, ABM19, ABM20, BAJ19, HMX21a, HMX21b, KIT20, KD18, LQM22, OV16, VB22, YWZ+21]. **Basic** [Car19, Nag17a]. **basis** [FASD20b, FASD20a]. **Bayes** [FLK16]. **Bayesian** [RPF+18, RFP+19]. **Beginning** [Nag17b]. **behavior** [ABM19, ABM20]. **beispielorientierter** [Bät20]. **belief** [FLK16]. **Benchmark** [Sel20]. **Benchmarking** [HS20]. **benchmarks** [Ste23]. **beyond** [Sen19]. **bi** [BA24]. **bi-directional** [BA24]. **Big** [SBC+17, Tho19]. **Bilevel** [GBS24]. **BilevelJuMP.jl** [GBS24]. **Billiard** [Dat17]. **biochemical** [BVM+17]. **Biological** [ZV19]. **BioSimulator.jl** [LSK+18]. **BLAS** [FSZD20]. **BLASFEO** [FSZD20]. **Book** [Fis19, Hel20]. **Bound** [KCHN18]. **boundary** [KRH18]. **Brain** [CJ19]. **Branch** [KCHN18]. **Branch-and-Bound** [KCHN18]. **Braunschweig** [BCD+20]. **break** [LQM22]. **Bring** [LGGB21]. **Brood** [CML+16]. **build** [Kwo19b]. **building** [Sal18].

C [MSP+22]. **C#** [Lau17]. **Calculate** [GLB16]. **calculation** [FASD20b, FASD20a]. **capabilities** [MGS+17]. **Captured** [HVW+20]. **Carlo** [Bau20]. **Case** [GKKL19, Gou20, PSS+15, KD18]. **Cataloging** [RPF+18, RFP+19]. **Cell** [Cha20, oC21]. **Centralities** [PKDM21]. **chain** [ABM19, ABM20]. **chaos** [Dat18]. **Choose** [CLMM20]. **classical** [PSK+24]. **Cloud** [LFROF18]. **Cluster** [CGWL19]. **clustering** [HMCG20]. **Code** [Cre16, Cha20, oC21]. **collection** [ZH16]. **Collective** [Pla19]. **Come** [RBSP23]. **Communication** [HS20]. **Comparative** [GKKL19]. **Comparing** [LMS21]. **Comparison** [HXW+19, KIT20]. **compilation** [PBC+21]. **compiler** [VB22]. **complete** [BS19]. **Complex** [SRA+19, MVWL17, She15]. **Complexity** [DD15]. **Composable** [BTC24]. **Composing** [RGJ+22]. **comprehensive** [Kwo19b]. **Computation** [Che21, KN20, Bag22, GKP18]. **Computational** [BDF+16, Car19, GLB16, LDMG20, HHPSS17, KZL+20]. **Computations** [CE19]. **Computer** [CJ19, LD19, OOBP15]. **Computing** [BKSE12, BEKS17, DD15, EGG+23, KR23b, LD15, SSR+20, BCRS15, BS19, Dan18, KS18, Kwo16, Sen19]. **Concise** [Bor18]. **Concurrency** [LMM21]. **Conference**

[BCD+20, KZL+20]. **constrained** [BVM+17]. **Constructing** [ZV19]. **Construction** [Ste23]. **Context** [RPX+16]. **Context-driven** [RPX+16]. **Continuation** [BT18]. **Control** [CFHT21, KD19]. **Controlling** [KIT20]. **ControlSystems.jl** [CFHT21]. **Converter** [VTCB23]. **Convex** [UMZ+14]. **Cookbook** [KS18, Roh16]. **Core** [SSR+20, HMCG20]. **Correlation** [DK20, PSK+24]. **CorrelationFunctions.jl** [PSK+24]. **Coupled** [AH18, KIT20, Pla19]. **courses** [Bät20]. **CPU** [PSK+24]. **CRC** [Fis19]. **Create** [Zea22]. **creating** [Gök21]. **Cross** [DK20]. **Cross-Correlation** [DK20]. **cryptography** [KD18]. **Cultural** [ZOV20]. **Current** [GCD20, PBB22]. **Current-Voltage** [GCD20]. **curved** [PSN20].

D [Fis19, OV16]. **D-Wave** [OV16]. **D4M** [MGS+17]. **daily** [KS18]. **dam** [LQM22]. **Data** [ABM20, AHG+20, ABBR23, CEK+16, CJ19, Eng23, HVW+20, Kam23, LFROF18, MT18, MT19, NK21, SB21, SBC+17, Tho19, ABM19, Ede17, Jos16, KS18, LBT+21, Lob19b, Sal18, She15, THSF17, Vou16, Zea22, Fis19, Hel20]. **Data-driven** [ABM20]. **database** [MGS+17]. **Datasets** [CGWL19]. **Debugging** [ALW+23]. **decoding** [VRR+16]. **default** [LMM21]. **defects** [RBSP23, RBSP23]. **Definite** [CJ19]. **density** [FASD20b, FASD20a]. **Deployment** [LFROF18]. **Depot** [ZH16]. **Design** [LDMG20, PSS+15, SKG+18, BSS16, BCC+18, Kwo19b, MPA16, Sen16, VB22]. **designed** [BHRC17]. **Designing** [HMCG20]. **determinant** [Bau20]. **Deterministic** [DK20]. **develop** [BSS16, Sen16, She15]. **Developing** [RUHB19]. **Development** [BSK22, GM19, Ede17]. **DG** [WLL+15]. **DG-fem** [WLL+15]. **didactic** [BHRC17]. **Different** [BBH+20]. **Differential** [RN17, Ste23]. **DifferentialEquations.jl** [RN17]. **Dimensional** [CEK+16, DK20, OT14]. **dimensions** [Dat17]. **directional** [BA24]. **Dirichlet** [DYFF19, HXW+19]. **discharge** [Cha20]. **discover** [BS19]. **Discrepancies** [FIR19]. **Dispatch** [BCK+14, PF17, BCG+20]. **Distributed** [BJ18, CEK+16, DYFF19, HXW+19, Smi20a, KS18, Sen19]. **DistributedFBA.jl** [HTF17]. **distribution** [RER23]. **Diversity** [ZOV20]. **Dividing** [Gou20]. **Domain** [KSÇ+20]. **Down** [LGGB21]. **Driven** [PSS+15, ABM20, RPX+16]. **Dual** [DK21]. **Dynamic** [BKSE12, DK21, MPA16, PSN20, WLL+15, CEK+16]. **dynamical** [PKA+22, Dat17]. **DynamicalBilliards.jl** [Dat17]. **DynamicalSystems.jl** [Dat18]. **Dynamics** [BBH+20, KSÇ+20, Dat18, Pla19]. **dynamism** [BCC+18].

easily [Kwo19b]. **easy** [Dat17]. **easy-to-use** [Dat17]. **Economics** [CLMM20]. **Ecosystem** [RN17]. **Effective** [BFD19]. **Efficient** [BJ22, DD15, KN20, KRH18, LGGB21, ZH23, ABM20, Ede17, HMCG20]. **Einstieg** [Bät20]. **elastic** [HMX21a, HMX21b]. **electromagnetic** [YWZ+21]. **electronic** [FASD20b, FASD20a]. **electrostatics** [KRH18]. **Elegant** [Che21, Inn18]. **Element** [HMX21a, HMX21b, KRH18, VB22]. **emitters** [Pla19]. **empirical** [RBSP23]. **encoding** [VRR+16]. **End** [SKG+18]. **End-to-End** [SKG+18]. **Energy** [EGG+23, SS21, Gök21, LV20]. **Engaging** [ZOV20]. **engineer** [ABM20]. **Engineering** [ZOV20]. **Engineers** [Nag17b]. **English** [ZV19]. **enhancement** [HHPSS17]. **ensembles** [BVM+17]. **enter** [BCRS15]. **Environment** [EHO16]. **Equality** [Che21]. **Equation** [MLXS19]. **Equations** [RN17, Ste23]. **EspyInsideFunction.jl**

[Mai22]. **estimate** [BVM+17]. **Estimation** [RTH17]. **eval** [BCG+20]. **Evaluating** [BBH+20, GVLD+23, BA24]. **Evaluation** [PSK+24]. **Exact** [GLB16]. **example** [Bät20]. **example-oriented** [Bät20]. **Examples** [Cre16]. **exascale** [GVLD+23]. **Exceptions** [ALW+23]. **exciting** [BCRS15]. **Execution** [FIR19]. **Experiences** [SBC+17]. **experiment** [MPA16]. **Experimental** [Kno14, ABM19]. **experimentally** [PKA+22]. **Exploitation** [AH18]. **explore** [Dan18, Jos16]. **Exploring** [CBS+18]. **Exporting** [Ver22]. **Extendable** [CSR+23, Dat17]. **Extended** [MGS+17]. **Extensible** [ABBR23, BFD19, Che21, ZH16]. **extracting** [Mai22].

Fast [Bau20, BKSE12, Che21, KBG23, MLXS19]. **Feature** [RN17]. **Feature-Rich** [RN17]. **FEM** [HMX21a, HMX21b, WLL+15]. **Finite** [HMX21a, HMX21b, KRH18, VB22]. **Fixed** [KIT20]. **Flexible** [RTH17]. **FlexPlan.jl** [RER23]. **Flight** [Sel20]. **Floating** [ALW+23, Gou20]. **Floating-Point** [ALW+23, Gou20]. **Flow** [CBS+18, GCD20, SRA+19, Tho19]. **FlowFPX** [ALW+23]. **Fluid** [GLB16, KIT20]. **flux** [HTF17, Inn18]. **Formulation** [GCD20]. **Formulations** [CBS+18]. **Fortran** [GKKL19, MSP+22]. **Fourier** [KBG23]. **Framework** [ABBR23, CBS+18, OT14, KPOR18]. **Fresh** [BEKS17, Ede15a]. **Friendly** [MLXS19]. **Full** [HS20]. **functional** [FASD20b, FASD20a]. **functions** [Bag22, BA24, Mai22, PSK+24]. **Fundamentals** [NK21]. **further** [She15]. **future** [Ede17].

Gadfly [Zea22]. **gas** [Cha20]. **General** [Eng23]. **Generalized** [JNR17]. **Generating** [Gou20]. **Generation** [HJK18a, HJK18b]. **Generator** [KN20, PSN20]. **generators** [Lau17]. **Generic** [KBG23]. **Genie** [BSK22]. **Geometry** [BDF+16]. **geostatistics** [Hof18]. **GeoStats.jl** [Hof18]. **German** [Bät20]. **Germany** [BCD+20]. **Getting** [BCRS15]. **Gillespie.jl** [Fro16]. **GPU** [MSP+22, PSK+24, Sen19]. **GPUs** [BFD19]. **granular** [XYN20]. **Graph** [CML+16, DK20]. **GraphBLAS** [PKDM21]. **grid** [RER23, YWZ+21]. **Gridap** [VB22]. **Grids** [MSS+19, PKA+22]. **Grounding** [MSS+19]. **guide** [BS19, BSK22, Kwo19b, Lob19b].

Handling [HVW+20]. **Hands** [Kwo19b, BSK22]. **Hands-on** [Kwo19b, BSK22]. **Harnessing** [AHG+20]. **Health** [AHG+20]. **heat** [LV20]. **Hecke** [FHHJ17]. **Heterogeneous** [SBC+17, SSR+20]. **High** [EGG+23, HTF17, Hof18, SS21, BCRS15, BSS16, BS19, BSK22, GVLD+23, KD19, OV16, PSN20, Sen16, Sen19, THSF17, YWZ+21]. **High-level** [HTF17, GVLD+23, KD19, OV16, PSN20]. **high-order** [PSN20]. **High-performance** [Hof18, BCRS15, BS19, BSK22, HTF17, THSF17, YWZ+21]. **higher** [BA24]. **HIV** [AHG+20]. **holistic** [RER23]. **home** [LV20]. **Homogeneous** [SBC+17]. **Homogenization** [HT14]. **homology** [HHPSS17]. **Homotopy** [BT18]. **HomotopyContinuation.jl** [BT18]. **HPC** [HS20, LMS21]. **Huffman** [VRR+16]. **Hydrodynamics** [LQM22]. **hyper** [BA24]. **hyper-radial** [BA24]. **hyperelastic** [ABM20]. **HyperRAF** [BA24]. **hypot** [Bor21].

ICCS [KZL+20]. **ICMS** [BCD+20]. **II** [KZL+20]. **IJulia** [VRR+16]. **images** [PSK+24]. **Imaging** [SBC+17]. **Implementation** [DD15, KBG23, WLL+15, CEK+16, oC21].

Implementations [HXW+19]. **impressive** [Zea22]. **Improved** [Bor21]. **incompressible** [ABM19]. **Industry** [LDMG20]. **Inference** [DYFF19, RPF+18, RFP+19]. **Inferring** [MG20]. **Infinite** [OT14]. **Infinite-Dimensional** [OT14]. **Inform** [MVWL17]. **information** [GKP18, MVWL17, OOBP15]. **information-theoretic** [MVWL17]. **Infrastructure** [ZH23, BTC24]. **InfrastructureModels** [BTC24]. **Initial** [HVW+20]. **Instantaneous** [SAD22]. **Integers** [Gou20]. **integrals** [BA24, KR23a]. **Integrating** [THSF17]. **Integrative** [CGWL19]. **Intelligence** [NK21]. **Interactive** [Zea22, Dan18]. **Interface** [CJ19, KLT20]. **Interfacing** [Lob19a]. **intermediate** [Mai22]. **International** [BCD+20, KZL+20]. **Introducing** [PSK+24]. **Introduction** [Bor18, Car19, Ede15b, Tho19, Bät20, Ede17]. **intuitive** [KRH18]. **Invariant** [HJK18a, HJK18b]. **involving** [BA24]. **ISA.jl** [SAD22]. **ISBN** [Fis19]. **Isogeny** [KD18]. **Isogeny-based** [KD18]. **isotropic** [ABM19]. **issues** [GMP+20]. **iterated** [KR23a]. **Iteration** [KIT20]. **Iteration-based** [KIT20].

Java [Dan18, Spo16]. **JavaScript** [Dan18]. **jInv** [RTH17]. **JIT** [PBC+21, VB22]. **JL** [CBS+18]. **JRAF** [Bag22]. **Julia** [Bät20, AH18, ABM19, ABBR23, Bag22, BA24, BCRS15, BSS16, Bal18, BS19, BSK22, BB20, BVM+17, Bät20, BCG+20, BTC24, BFD19, BKSE12, BEKS17, BCC+18, BJ18, BAJ19, BJ22, BH18, Bor18, BT18, BBH+20, Car19, CFHT21, CE19, CML+16, Che21, CEK+16, CSR+23, CLMM20, CJ19, Cre16, CGWL19, Dan18, Dat17, Dat18, DYFF19, DD15, DL19, DK21, DK20, Ede15a, Ede15b, Ede17, EHO16, Eng23, EGG+23, FIR19, FASD20b, FASD20a, Fro16, GMP+20, GBS24, GKP18, GKKL19, GKC22, GMO19, GVLD+23, Gök21, HTF17, HT14, HVW+20, Hof18, HXW+19, HJK18a, HJK18b, HS20, HMCG20, HMX21a, HMX21b, Inn18, JNR17, Jos16, KS18, Kam23, KN20, KR23a, KRH18, KD18, Kno14, KBG23, KD19, KPOR18, KCHN18, Kwo16, Kwo19a, Kwo19b, KSÇ+20, LSK+18, Lau17, LD19, LGGB21, LMS21]. **Julia** [Lob19a, Lob19b, LD15, LQM22, MSP+22, MT18, MT19, MC19, MR18, MSS+19, Nag17b, Nag17a, NBP+18, NK21, OV16, PSN20, Pas17, PBC+21, PKDM21, RN17, RGJ+22, RBSP23, RFP+19, Roh16, RER23, Rou19, RTH17, Sal18, SB21, SAD22, Sel20, Sen16, Sen19, SEK+13, She15, SNNB17, SRA+19, Smi20a, Smi20b, Spo16, SS21, Ste23, SSR+20, Tho19, UMZ+14, VTCB23, VB22, Ver22, Vou16, Vou18, Vou19, WLL+15, XYN20, YWZ+21, Zea22, ZH16, ZV19, ZH23, oC21, Fis19, Hel20]. **Julia-Based** [KSÇ+20, HMX21a, HMX21b, LQM22, YWZ+21]. **Julia/Nemo** [KD18]. **JuliaReach** [BFF+19]. **July** [BCD+20]. **JuMP** [DHL17]. **June** [KZL+20]. **Juniper** [KCHN18]. **JuPOETs** [BVM+17]. **Jupyter** [Dan18]. **JupyterLab** [Dan18]. **juSFEM** [HMX21a, HMX21b]. **juSPH** [LQM22].

Kokkos [GVLD+23]. **Kutta** [GKKL19].

L [BJ18]. **L-shaped** [BJ18]. **Language** [BKSE12, CSR+23, DHL17, Eng23, EGG+23, Kno14, LGGB21, MC19, Sel20, SSR+20, ZV19, ABM19, BCRS15, BS19, BSK22, BVM+17, GMP+20, KRH18, KD19, MGS+17, OV16, PSN20, WLL+15, oC21]. **Languages** [GKKL19, LMM21, Lob19a, PF17, PBB22, THSF17]. **large** [LBT+21, YWZ+21]. **learn** [Sal18]. **Learning** [AHG+20, Dan18, NK21, RGJ+22, SKG+18, BSS16, BHRC17, GMP+20, Inn18, Sal18]. **Lefever** [MLXS19]. **Level** [VTCB23, GVLD+23, HTF17, KD19, OV16, PSN20].

Levels [PSS+15]. **leverage** [BSS16]. **Libraries** [PBB22]. **library** [Dat18]. **like** [LD19]. **Linear** [Bor18, OT14, PBB22, Tho19, RPX+16]. **Loop** [BB20, HJK18a, HJK18b]. **LSKUM** [MSP+22]. **Lugiato** [MLXS19].

Machine [NK21, RGJ+22, SKG+18, GMP+20, Inn18, Sal18]. **Machine-Learning** [SKG+18]. **machines** [OV16]. **macro** [ABM20]. **Macroeconomics** [Car19]. **macroscopic** [ABM19]. **maintainable** [Kwo19b]. **Makie** [Zea22]. **management** [LV20, LBT+21]. **Manifold** [CJ19]. **Manifolds** [ABBR23, ABM20]. **Manifolds.jl** [ABBR23]. **manipulating** [CJ19]. **Mapping** [PBB22]. **Mastering** [She15]. **Material** [HVW+20, BHRC17, SNNB17]. **materials** [XYN20]. **Math** [Nag17a]. **Mathematical** [BCD+20, DHL17, MR18]. **Mathematics** [Bät20]. **Mathematik** [Bät20]. **MATLAB** [Bät20, Bät20, Bor18, MSS+19, CLMM20, KR23a]. **Matrices** [CJ19]. **matrix** [ZH16, ZH16]. **MCMC** [DYFF19]. **McNicholas** [Fis19]. **mechanical** [XYN20]. **Mechanisms** [BB20]. **Medical** [SBC+17]. **Medium** [VTCB23]. **meets** [GKC22]. **Mesh** [KN20, PSN20]. **meshfree** [MSP+22]. **Metatheory.jl** [Che21]. **Method** [GLB16, HMX21a, HMX21b, BA24, BCG+20, SNNB17, Ste23, YWZ+21]. **Methods** [DK20, GKKL19, KRH18]. **micro** [ABM20, XYN20]. **micro-mechanical** [XYN20]. **Migration** [RUHB19]. **Mixed** [SKG+18]. **Mixed-Signal** [SKG+18]. **Mixture** [DYFF19, HXW+19]. **model** [ABM19, BVM+17, XYN20, CEK+16]. **Modeling** [DHL17, EHO16, GBS24, RGJ+22, ZV19, LBT+21]. **Models** [DYFF19, HXW+19, LMS21, RUHB19, SSR+20, Tho19, ZV19, GVLD+23, Gök21, OOBP15]. **Modern** [LMM21]. **Modes** [KN20]. **modular** [Dat17]. **modulating** [LV20]. **Module** [SRA+19]. **molecular** [Bag22]. **Monte** [Bau20]. **Motion** [HVW+20]. **MPI** [Cre16]. **Multi** [BTC24, Kno14, SSR+20, HMCG20]. **Multi-Core** [SSR+20, HMCG20]. **Multi-infrastructure** [BTC24]. **Multi-threading** [Kno14]. **multiobjective** [BVM+17]. **Multiple** [BCK+14, CGWL19, PF17, BH18]. **multiple-scattering** [BH18]. **Multithreading** [BB20, Sen19].

Natural [DD15]. **Nemo** [FHHJ17, KD18]. **Nemo/Hecke** [FHHJ17]. **NESSie.jl** [KRH18]. **Netherlands** [KZL+20]. **Netlogo** [BBH+20]. **NFFT.jl** [KBG23]. **Nimble** [ALW+23]. **nodes** [GVLD+23]. **Nonequidistant** [KBG23]. **Nonlinear** [KCHN18, Dat18, MPA16]. **nonlocal** [KRH18]. **nonparametric** [FLK16]. **Note** [Cre16]. **Notebooks** [LDMG20]. **Novel** [SEK+13]. **NPC** [VTCB23]. **Numba** [GVLD+23]. **Numbers** [Gou20]. **Numerical** [BEKS17, Bor18, HT14, GKP18, KS18, Mai22, Ste23].

obtained [ABM19]. **One** [DK20]. **Open** [CBS+18, KCHN18, VTCB23, Ede17, GMP+20, HMX21a, HMX21b, KPOR18, LQM22, PKA+22, RER23]. **Open-Source** [CBS+18, KCHN18, HMX21a, HMX21b, LQM22, PKA+22, RER23]. **Operation** [KIT20]. **Operations** [HVW+20, LD15, Kwo16, Kwo19a]. **Operators** [BCK+14]. **Opinion** [BBH+20]. **Optim** [MR18]. **Optimal** [GCD20, SRA+19, LV20, MPA16]. **Optimization** [BTC24, DHL17, GBS24, SRA+19, UMZ+14, VTCB23, BVM+17, BAJ19, MR18]. **optimizations** [RPX+16, Sen19]. **optimizing** [BCG+20, BH18]. **Options** [BBH+20]. **order** [PSN20]. **oriented**

[Bät20, THSF17]. **Other** [Lob19a].

Package [BT18, CJ19, CGWL19, DK21, HJK18a, HJK18b, RTH17, Bag22, BA24, Dat17, FASD20b, FASD20a, GKP18, GMO19, Gök21, HMX21a, HMX21b, HHPSS17, LBT+21, LQM22, MR18, PKA+22, Ste23, VB22]. **packages** [Zea22]. **PageRank** [PKDM21]. **pages** [Fis19]. **Pairs** [RUHB19]. **paperback** [Fis19]. **Parabolic** [KN20]. **Parallel** [AH18, CML+16, CE14, GM19, KSÇ+20, LMS21, MPA16, SSR+20, oC21, Ede15a, HMCG20, HMX21a, HMX21b, LQM22]. **Parallelization** [CE14]. **Parameter** [RTH17]. **Part** [KZL+20]. **Particle** [Cha20, LQM22, oC21]. **Particle-in-Cell** [Cha20, oC21]. **particleMDI** [CGWL19]. **ParticleScattering** [BH18]. **Partitioning** [CML+16]. **path** [BSS16]. **pathologies** [PBC+21]. **pathways** [MG20]. **Pattern** [VTCB23]. **patterns** [Kwo19b]. **Paul** [Fis19]. **PDE** [RTH17]. **PDEs** [HT14]. **Peers** [AHG+20]. **perform** [ABM20]. **Performance** [GKKL19, GKC22, HXW+19, HS20, HHPSS17, LMS21, MSP+22, SS21, BCRS15, BSS16, BS19, BSK22, BCC+18, GVLD+23, HTF17, Hof18, PBC+21, Sen16, Sen19, THSF17, YWZ+21]. **Performant** [RN17]. **performing** [BSS16, Sen16]. **Permits** [CE14]. **persistent** [HHPSS17]. **Petascale** [RPF+18, RFP+19]. **Peter** [Fis19]. **photonic** [PSN20]. **photovoltaic** [LV20]. **Physics** [EGG+23, SS21]. **plane** [FASD20b, FASD20a]. **planning** [RER23]. **Platform** [SBC+17, YWZ+21]. **Platforms** [SSR+20]. **Plots** [Zea22]. **Plots.jl** [CSR+23]. **Plotting** [CSR+23, Zea22]. **pocket** [Lob19b]. **Point** [ALW+23, Gou20, KIT20, SNNB17]. **Policy** [BAJ19]. **Policy-based** [BAJ19]. **POLO.jl** [BAJ19]. **polymake** [KLT20]. **Polymake.jl** [KLT20]. **polymers** [ABM19, ABM20]. **Polymorphism** [CE14]. **Polynomial** [SRA+19]. **portability** [GVLD+23]. **Portable** [LMS21]. **Positive** [AHG+20, CJ19]. **Potential** [EGG+23, SSR+20]. **Power** [CBS+18, GCD20, KSÇ+20, SRA+19, Tho19, BSS16, LBT+21, PKA+22, YWZ+21]. **PowerDynamics.jl** [PKA+22]. **Powered** [AHG+20]. **PowerModels** [CBS+18]. **PowerSystems.jl** [LBT+21]. **Practical** [OT14]. **Practically** [Rou19]. **Precision** [AHG+20]. **Prefix** [CE14]. **presence** [BCG+20]. **Presentation** [CE14]. **Press** [Fis19]. **primer** [Kwo16]. **Primes** [BDF+16]. **probabilistic** [MG20]. **Problem** [GCD20, PBB22]. **Problems** [GBS24, BH18, HMX21a, HMX21b, LQM22, She15]. **Proceedings** [KZL+20, BCD+20]. **Process** [DYFF19, HXW+19]. **Processing** [LFROF18, MC19, SBC+17, Smi20a, She15]. **processors** [HMCG20]. **Productivity** [GKC22, THSF17]. **productivity-oriented** [THSF17]. **Program** [FIR19]. **Programmable** [SKG+18]. **Programming** [AH18, Bal18, BFD19, BJ22, CSR+23, DK21, EHO16, Eng23, EGG+23, KS18, Kno14, LMS21, LMM21, MC19, MSS+19, Nag17b, Sel20, SNNB17, XYN20, BCRS15, BSS16, BS19, BSK22, BVM+17, BHRC17, Ede15a, GVLD+23, KD19, Kwo16, Kwo19a, Lob19b, MPA16, MG20, OV16, PSN20, Sal18, Sen19, She15, THSF17, oC21]. **Programs** [ZH23, BSS16, RBSP23, Sen16]. **projects** [Sal18]. **PROMISE** [SKG+18]. **Proof** [CE14]. **protein** [KRH18]. **Prototyping** [LGGB21]. **Pulse** [VTCB23]. **pumps** [LV20]. **Purpose** [Eng23]. **PWDFT.jl** [FASD20b, FASD20a]. **pyLLE** [MLXS19]. **Python** [CLMM20, Dan18, DD15, GVLD+23, MSP+22, MSS+19, PKDM21, SBC+17, Ver22]. **Python/Numba** [GVLD+23].

QSWalk.jl [GMO19]. **Quadratic** [AH18]. **Quantitative** [Car19]. **quantum**

[Bau20, GKP18, GMO19, KPOR18, Pla19]. **QuantumInformation.jl** [GKP18]. **QuantumOptics.jl** [KPOR18]. **quick** [Lob19b].

R [Dan18]. **radial** [BA24]. **Random** [Gou20, PF17]. **rational** [NBP+18]. **ready** [HS20]. **real** [KD19]. **real-time** [KD19]. **recipes** [KS18]. **reconciled** [BCC+18]. **reconstruction** [NBP+18]. **reference** [BS19, Lob19b]. **Related** [DD15]. **relativistic** [Bag22]. **Remote** [LFROF18]. **Reports** [Pas17]. **Research** [LD15, Kwo16, Kwo19a]. **results** [Mai22]. **ResumableFunctions** [Lau17]. **reusable** [Kwo19b]. **reverse** [ABM20]. **reverse-engineer** [ABM20]. **Review** [Fis19, Hel20]. **Rich** [RN17]. **robotics** [KD19]. **Robust** [KIT20, Kwo19b]. **Rodas5P** [Ste23]. **Rosenbrock** [Ste23]. **Runge** [GKKL19].

S [HMX21a, HMX21b]. **S-FEM** [HMX21a, HMX21b]. **Safe** [LMM21]. **Safe-by-default** [LMM21]. **SAFEJ** [ZH23]. **Sampling** [JNR17]. **Saturation** [Che21]. **scale** [LBT+21]. **Scattering** [GLB16, BH18]. **Scheduling** [BB20]. **Science** [Eng23, Fis19, Hel20, KZL+20, MT18, NK21, SB21, Ede17, Jos16, KS18, Lob19b, MT19, Vou16]. **Scientific** [FIR19, Pas17]. **scientist** [LD19]. **Scientists** [Nag17b]. **scratch** [Jos16]. **SDDP.jl** [DK21]. **SDR** [LGGB21]. **Second** [Eng23]. **Securing** [ZH23]. **SEML** [ZV19]. **Sensing** [LFROF18]. **series** [KR23b]. **server** [BSK22]. **server-side** [BSK22]. **shaped** [BJ18]. **sharp** [Lau17]. **side** [BSK22, Jos16]. **Signal** [MC19, SKG+18]. **signaling** [MG20]. **Signals** [DK20]. **Significant** [GKKL19]. **simple** [ABM19]. **Simplified** [ZV19]. **Simulating** [SSR+20, KPOR18]. **Simulation** [BBH+20, Fro16, GM19, HVW+20, KSÇ+20, RGJ+22, Sel20, KR23a, KD19, LSK+18, WLL+15, YWZ+21]. **Simulations** [MSS+19, ABM20, Cha20]. **skills** [She15]. **SM-type** [KIT20]. **Smoothed** [HMX21a, HMX21b, LQM22]. **Software** [BCD+20, FIR19, Ver22, Dat18, VB22]. **Solution** [GLB16, FLK16]. **Solutions** [KIT20]. **solve** [She15]. **Solver** [KCHN18, MLXS19]. **solvers** [MSP+22]. **Solving** [BH18, GBS24, RN17]. **Source** [CBS+18, KCHN18, VTCB23, HMX21a, HMX21b, LQM22, PKA+22, RER23]. **Space** [LDMG20]. **sparse** [RPX+16]. **Sparso** [RPX+16]. **spectral** [HMCG20, SAD22]. **spectroscopy** [Pla19]. **speed** [RBSP23]. **SPH** [LQM22]. **Spheroids** [GLB16]. **stability** [PBC+21]. **stable** [Bau20]. **started** [BCRS15]. **State** [Car19, PBB22]. **State-of-the-Art** [Car19]. **Static** [Spo16]. **Statistically** [GKKL19]. **Statistics** [NK21]. **stay** [RBSP23]. **Stochastic** [BJ22, DK21, DK20, Fro16, LSK+18, GMO19, KR23a]. **structure** [ABM19, ABM20, FASD20b, FASD20a]. **structure-based** [ABM19, ABM20]. **Structured** [AH18]. **structures** [THSF17]. **Students** [ZOV20]. **Studiengänge** [Bät20]. **Studies** [ZOV20]. **Study** [Gou20, PSS+15, KD18, RBSP23]. **style** [Lau17]. **subtyping** [NBP+18]. **such** [Zea22]. **Support** [Kno14, LFROF18, BHRC17]. **surreal** [Rou19, Rou19]. **syntax** [Lob19b, RBSP23]. **Synthesizing** [FIR19]. **System** [KSÇ+20, Gök21, LV20, LBT+21]. **Systems** [EHO16, LDMG20, Tho19, Dat17, KPOR18, LV20, MPA16, MVWL17, OOBP15].

Tait [Fis19]. **Tanks** [KIT20]. **Taste** [Eng23]. **TE** [KN20]. **teaching** [BHRC17]. **Technical** [BKSE12, BCRS15, BS19, Bät20]. **Techniques** [Car19]. **technische** [Bät20]. **technologies** [OOBP15]. **Tensor** [CE19, Tho19]. **Tensors.jl** [CE19]. **test**

[ZH16]. **Testing** [GKKL19, PF17]. **theoretic** [MVWL17]. **theory** [FASD20b, FASD20a, GKP18]. **Think** [DL19, LD19]. **threading** [Kno14]. **Time** [FIR19, KSÇ+20, KD19]. **Time-Domain** [KSÇ+20]. **TM** [KN20]. **tool** [BHRC17, RER23]. **Toolbox** [CFHT21, KR23a]. **toolkit** [MVWL17]. **Tools** [ALW+23, VTCB23]. **ToQ.jl** [OV16]. **transcendental** [BA24]. **Transform** [KBG23]. **transient** [YWZ+21]. **transmission** [RER23]. **Tree** [AH18, FLK16]. **Tree-Structured** [AH18]. **Triangle** [PKDM21]. **Twitter** [DK20]. **Two** [KIT20, LGGB21, Dat17]. **Two-Language** [LGGB21]. **Type** [PBC+21, KIT20].

Ultrasound [MC19]. **Unbalanced** [GCD20]. **understand** [RBSP23]. **Unified** [EHO16]. **Unity** [ZOV20]. **Universe** [RPF+18, RFP+19]. **Unleashing** [BFD19]. **Usage** [MSS+19]. **use** [Dat17]. **Used** [FIR19]. **User** [CSR+23, MLXS19]. **Using** [BCK+14, Car19, DYFF19, DD15, LD15, MC19, Pas17, Sel20, SBC+17, VTCB23, Dan18, FASD20b, FASD20a, SSR+20, Tho19, VRR+16].

validated [PKA+22]. **Variables** [SRA+19]. **Verification** [PSS+15]. **Verification-Driven** [PSS+15]. **Visible** [RPF+18, RFP+19]. **Visualization** [Zea22, Sal18]. **visualizations** [Zea22]. **Voltage** [GCD20, VTCB23]. **vs** [BBH+20, KIT20]. **VS/SM** [KIT20]. **VS/SM-type** [KIT20].

walks [GMO19]. **Wanner** [Ste23]. **wave** [FASD20b, FASD20a, OV16]. **Waveguides** [KN20]. **Weave.jl** [Pas17]. **web** [BSK22, BSK22, Sal18]. **within** [Ste23]. **workflow** [KS18]. **Workshop** [SB21]. **World** [BCG+20, BCRS15, Jos16]. **WYPiWYG** [ABM19].

x [Bor21, GM19].

References

Axen:2023:MJE

[ABBR23] Seth D. Axen, Mateusz Baran, Ronny Bergmann, and Krzysztof Rzecki. `Manifolds.jl`: an extensible Julia framework for data analysis on manifolds. *ACM Transactions on Mathematical Software*, 49(4):33:1–33:??, December 2023. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3618296`.

Amores:2019:ACB

[ABM19] Víctor Jesús Amores, José María Benítez, and Francisco Javier Montáns. Average-chain behavior of isotropic incompressible polymers obtained from macroscopic experimental data. A simple structure-based WYPiWYG model in Julia language. *Advances in Engineering Software*, 130:41–57, 2019. CODEN AESODT. ISSN 0965-9978 (print), 0141-1195 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0965997818310779`.

Amores:2020:DDS

[ABM20] Víctor Jesús Amores, José María Benítez, and Francisco Javier Montáns. Data-driven, structure-based hyperelastic manifolds: a macro–micro–macro approach to reverse-engineer the chain behavior and perform efficient simu-

lations of polymers. *Computers & Structures*, 231:106209, April 2020.

Ahmadi:2018:PET

[AH18] Shervin Parvini Ahmadi and Anders Hansson. Parallel exploitation for tree-structured coupled quadratic programming in Julia. In IEEE, editor, *2018 22nd International Conference on System Theory, Control and Computing (ICSTCC)*, pages 597–602. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Asaeikheybari:2020:PHH

[AHG+20] G. Asaeikheybari, C. Hughart, D. Gupta, A. Avery, M. M. Step, J. M. Smith, J. Kratz, J. Briggs, and M.-C. Huang. Precision HIV health app, positive peers, powered by data harnessing, AI, and learning. In *2020 Second International Conference on Transdisciplinary AI (TransAI)*, pages 108–112. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Allred:2023:FNT

[ALW+23] Taylor Allred, Xinyi Li, Ashton Wiersdorf, Ben Greenman, and Ganesh Gopalakrishnan. FlowFPX: Nimble tools for debugging floating-point exceptions. In ????, editor, *Julia Conference 2023*, page 8. ????, ????, 2023.

Bagci:2024:BDM

[BA24] A. Bagci and Gustavo A. Aucar. A bi-directional method for evaluating integrals involving higher transcendental functions. HyperRAF: a Julia package for new hyper-radial functions. *Computer Physics Communications*, 295(??):Article 108990, February 2024. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465523003351`.

Bagci:2022:JJP

[Bag22] Ali Bagci. `JRAF`: a Julia package for computation of relativistic molecular auxiliary functions. *Computer Physics Communications*, 273(??):Article 108276, April 2022. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S001046552100388X`.

Biel:2019:PPJ

[BAJ19] Martin Biel, Arda Aytekin, and Mikael Johansson. `POLO.jl`: Policy-based optimization algorithms in Julia. *Advances in Engineering Software*, 136:102695, 2019. CODEN AESODT. ISSN 0965-9978 (print), 0141-1195 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0965997818311049`.

Balbaert:2018:JP

[Bal18] Ivo Balbaert. *Julia 1.0 Programming*. Packt Publishing, Birm-

ingham, UK, 2018. ISBN 1-78899-909-6. iv + 184 pp. LCCN QA76.73.J85 2018. URL `http://international.scholarvox.com/book/88863229`.

Battig:2020:AMM

[Bät20] Daniel Bättig. *Angewandte Mathematik 1 mit MATLAB und Julia: Ein anwendungs- und beispielorientierter Einstieg für technische Studiengänge. (German) [Applied Mathematics 1 with MATLAB and Julia: an application and example-oriented introduction to technical courses]*. Springer Vieweg, Berlin and Heidelberg, Germany, 2020. ISBN 3-662-60951-7 (print), 3-662-60952-5 (ePub). xiii + 254 pp. LCCN ¿¿¿¿.

Bauer:2020:FSD

[Bau20] Carsten Bauer. Fast and stable determinant quantum Monte Carlo. *SciPost Physics Core*, 2 (2), June 2020.

Barros:2020:ALS

[BB20] Diana A. Barros and Cristiana Bentes. Analyzing the loop scheduling mechanisms on Julia multithreading. In IEEE, editor, *2020 IEEE 32nd International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD)*, pages 257–264. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Burbach:2020:NVJ

[BBH+20] Laura Burbach, Poornima Belavadi, Patrick Halbach, Lilian Kojan, Nils Plettenberg, Johannes Nakayama, Martina Ziefle, and André Calero Valdez. Netlogo vs. Julia: Evaluating different options for the simulation of opinion dynamics. In *Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management. Human Communication, Organization and Work*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2020. URL `http://link.springer.com/chapter/10.1007/978-3-030-49907-5_1`.

Bezanson:2018:JDP

[BCC+18] Jeff Bezanson, Jiahao Chen, Benjamin Chung, Stefan Karpinski, Viral B. Shah, Jan Vitek, and Lionel Zoubritzky. Julia: dynamism and performance reconciled by design. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):120:1–120:23, October 2018. ISSN 2475-1421. URL `https://dl.acm.org/doi/abs/10.1145/3276490`.

Bigatti:2020:MSI

[BCD+20] Anna Maria Bigatti, Jacques Carette, James H. Davenport, Michael Joswig, and Timo de Wolff, editors. *Mathematical Software — ICMS 2020: 7th International Conference, Braunschweig, Germany, July 13–16,*

2020, Proceedings. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2020.

Belyakova:2020:WAJ

[BCG+20] Julia Belyakova, Benjamin Chung, Jack Gelinas, Jameson Nash, Ross Tate, and Jan Vitek. World age in Julia: optimizing method dispatch in the presence of eval. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):207:1–207:26, November 2020. ISSN 2475-1421. URL `https://dl.acm.org/doi/10.1145/3428275`.

Bezanson:2014:AOU

[BCK+14] Jeff Bezanson, Jiahao Chen, Stefan Karpinski, Viral Shah, and Alan Edelman. Array operators using multiple dispatch. In *Proceedings of ACM SIGPLAN International Workshop on Libraries, Languages, and Compilers for Array Programming*. ACM Press, New York, NY 10036, USA, June 2014.

Balbaert:2015:GSJ

[BCRS15] Ivo Balbaert, Kevin Colaco, Neeshma Ramakrishnan, and Rashmi Sawant, editors. *Getting started with Julia programming: enter the exciting world of Julia, a high-performance language for technical computing*. Community Experience Distilled. Packt Publishing, Birmingham, UK, 2015. ISBN 1-78328-479-X, 1-78328-480-3 (e-book). 214 pp. LCCN QA297 .B353 2015eb. URL `http://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=1973847`; `http://site.ebrary.com/id/11025933`; `http://www.vlebooks.com/vleweb/product/openreader?id=none\%26isbn=9781783284801`.

Bohm:2016:BPC

[BDF+16] Janko Böhm, Wolfram Decker, Claus Fieker, Santiago Laplagne, and Gerhard Pfister. Bad primes in computational algebraic geometry. In *Mathematical Software — ICMS 2016*, pages 93–101. Springer International Publishing, Cham, Switzerland, 2016.

Bezanson:2017:JFA

[BEKS17] Jeff Bezanson, Alan Edelman, Stefan Karpinski, and Viral B. Shah. Julia: a fresh approach to numerical computing. *SIAM Review*, 59(1):65–98, ???? 2017. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Besard:2019:EEP

[BFD19] Tim Besard, Christophe Foket, and Bjorn De Sutter. Effective extensible programming: Unleashing Julia on GPUs. *IEEE Transactions on Parallel and Distributed Systems*, 30 (4):827–841, April 2019. CODEN ITDSEO. ISSN 1045-9219 (print), 1558-2183 (electronic)ITDSEO. URL `https://ieeexplore.ieee.org/document/8471188/`.

Bogomolov:2019:J

[BFF+19] Sergiy Bogomolov, Marcelo Forets, Goran Frehse, Kostiantyn Potomkin, and Christian Schilling. JuliaReach. In *Proceedings of the 22nd ACM International Conference on Hybrid Systems: Computation and Control*. ACM Press, New York, NY 10036, USA, April 2019.

Blankrot:2018:PPS

[BH18] Boaz Blankrot and Clemens Heitzinger. `ParticleScattering`: Solving and optimizing multiple-scattering problems in Julia. *Journal of Open Source Software*, 3(25):691:1–691:3, May 2018. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00691`.

Blas:2017:STD

[BHRC17] M. J. Blas, F. Hauque, S. Re, and M. Castellaro. A support tool designed as didactic material for teaching and learning programming. In *2017 XLIII Latin American Computer Conference (CLEI)*, pages 1–10. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Biel:2018:DSA

[BJ18] Martin Biel and Mikael Johansson. Distributed L-shaped algorithms in Julia. In IEEE, editor, *2018 IEEE/ACM Parallel Applications Workshop, Alternatives To MPI (PAW-ATM)*, pages 57–69. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Biel:2022:ESP

[BJ22] Martin Biel and Mikael Johansson. Efficient stochastic programming in Julia. *INFORMS Journal on Computing*, 34(4):1885–1902, Fall 2022. CODEN ???? ISSN 1091-9856 (print), 1526-5528 (electronic). URL `https://pubsonline.informs.org/doi/fpi/10.1287/ijoc.2022.1158`.

Bezanson:2012:JFD

[BKSE12] Jeff Bezanson, Stefan Karpinski, Viral B. Shah, and Alan Edelman. Julia: a fast dynamic language for technical computing. *arXiv.org*, ??(??):1–27, September 25, 2012. URL `https://arxiv.org/abs/1209.5145`; `https://arxiv.org/pdf/1209.5145.pdf`.

Bornemann:2018:NLA

[Bor18] Folkmar Bornemann. *Numerical Linear Algebra: a Concise Introduction with MATLAB and Julia*. Springer Undergraduate Mathematics Series. Springer International Publishing, Cham, Switzerland, 2018. ISBN 3-319-74221-3, 3-319-74222-1 (e-book). ISSN 1615-2085. x + 153 pp. LCCN QA184-205; QA297-299.4.

Borges:2021:AIA

[Bor21] Carlos F. Borges. Algorithm 1014: an improved algorithm for `hypot(x,y)`. *ACM Transactions on Mathematical Software*, 47(1):

9:1–9:12, January 2021. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL https://dl.acm.org/doi/10.1145/3428446.

Balbaert:2019:JPC

[BS19] Ivo Balbaert and Adrian Salceanu. *Julia 1.0 programming complete reference guide: discover Julia, a high-performance language for technical computing*. Learning path. Packt Publishing, Birmingham, UK, 2019. ISBN 1-83882-467-7. viii + 451 pp. LCCN QA76.73.J84. URL http://proquest.safaribooksonline.com/?fpi=9781838822248.

Balbaert:2022:MOE

[BSK22] Ivo Balbaert, Adrian Salceanu, and Logan Kilpatrick. *Web Development with Julia and Genie: a hands-on guide to high-performance server-side web development with the Julia programming language*. Packt Publishing, Birmingham, UK, 2022. ISBN 1-80181-095-8, 1-80181-113-X. xvii + 235 pp. LCCN ????

Balbaert:2016:JHP

[BSS16] Ivo Balbaert, Avik Sengupta, and Malcolm Sherrington. *Julia: high performance programming: learning path: leverage the power of Julia to design and develop high performing programs*. Learning path. Packt Publishing, Birmingham, UK, 2016. ISBN 1-78712-570-X, 1-78712-610-2 (e-book). 697 pp. LCCN QA76.7 .B353 2016.

Breiding:2018:PHJ

[BT18] Paul Breiding and Sascha Timme. HomotopyContinuation.jl: a package for homotopy continuation in Julia. In *Mathematical Software ICMS 2018*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2018. URL http://link.springer.com/chapter/10.1007/978-3-319-96418-8_54.

Bent:2024:ICM

[BTC24] Russell Bent, Byron Tasseff, and Carleton Coffrin. InfrastructureModels: Composable multi-infrastructure optimization in Julia. *INFORMS Journal on Computing*, 36(2):600–615, March/April 2024. CODEN ???? ISSN 1091-9856 (print), 1526-5528 (electronic). URL https://pubsonline.informs.org/doi/full/10.1287/ijoc.2022.0118.

Bassen:2017:JCM

[BVM+17] David M. Bassen, Michael Vilkhovoy, Mason Minot, Jonathan T. Butcher, and Jeffrey D. Varner. JuPOETs: a constrained multiobjective optimization approach to estimate biochemical model ensembles in the Julia programming language. *BMC Systems Biology*, 11(1), January 2017. CODEN BSBMCC. ISSN 1752-0509. URL http://link.springer.com/article/10.1186/s12918-016-0380-2.

Caraiani:2019:IQM

[Car19] Petre Caraiani. *Introduction to Quantitative Macroeconomics Using Julia: From Basic to State-of-the-Art Computational Techniques*. Academic Press, New York, USA, 2019. ISBN 0-12-812219-6, 0-12-813512-3 (e-book). LCCN HB172.5. URL `https://www.sciencedirect.com/science/article/pii/B9780128122198000082`.

Coffrin:2018:PJO

[CBS+18] C. Coffrin, R. Bent, K. Sundar, Y. Ng, and M. Lubin. PowerModels. JL: An open-source framework for exploring power flow formulations. In *2018 Power Systems Computation Conference (PSCC)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Chen:2014:PPP

[CE14] J. Chen and A. Edelman. Parallel prefix polymorphism permits parallelization, presentation proof. In *2014 First Workshop for High Performance Technical Computing in Dynamic Languages*, pages 47–56. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Carlsson:2019:TJT

[CE19] Kristoffer Carlsson and Fredrik Ekre. `Tensors.jl` — tensor computations in Julia. *Journal of Open Research Software*, 7(1):7–??, March 21, 2019. CODEN ???? ISSN 2049-9647. URL `https://openresearchsoftware.metajnl.com/articles/10.5334/jors.182/`.

Chen:2016:JID

[CEK+16] Alexander Chen, Alan Edelman, Jeremy Kepner, Vijay Gadepally, and Dylan Hutchison. Julia implementation of the Dynamic Distributed Dimensional Data Model. In IEEE, editor, *2016 IEEE High Performance Extreme Computing Conference (HPEC)*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, September 2016.

Carlson:2021:CJC

[CFHT21] Fredrik Bagge Carlson, Mattias Falt, Albin Heimerson, and Olof Troeng. ControlSystems.jl: a control toolbox in Julia. In IEEE, editor, *2021 60th IEEE Conference on Decision and Control (CDC)*, pages 4847–4853. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Cunningham:2019:PPJ

[CGWL19] Nathan Cunningham, Jim E. Griffin, David L. Wild, and Anthony Lee. `particleMDI`: a Julia package for the integrative cluster analysis of multiple datasets. In *Bayesian Statistics and New Generations*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2019. URL `http://link.springer.com/chapter/`

10.1007/978-3-030-30611-3_7.

Chaber:2020:PCC

[Cha20] B. Chaber. Particle-in-cell code for gas discharge simulations. In *2020 IEEE 21st International Conference on Computational Problems of Electrical Engineering (CPEE)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Cheli:2021:PMJ

[Che21] Alessandro Cheli. `Metatheory.jl`: Fast and elegant algebraic computation in Julia with extensible equality saturation. *Journal of Open Source Software*, 6(59): 3078, March 2021.

Congedo:2019:JPM

[CJ19] M. Congedo and S. Jain. A Julia package for manipulating brain–computer interface data in the manifold of positive definite matrices. In IEEE, editor, *2019 IEEE International Conference on Systems, Man and Cybernetics (SMC)*, pages 211–216. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Coleman:2020:MPJ

[CLMM20] Chase Coleman, Spencer Lyon, Lilia Maliar, and Serguei Maliar. Matlab, Python, Julia: What to choose in economics? *Computational Economics*, page ??, 2020. CODEN CNOMEL. URL `http://link.springer.com/article/10.1007/s10614-020-09983-3`.

Chan:2016:PAB

[CML+16] Jose Juan Mijares Chan, Yuyin Mao, Ying Ying Liu, Parimala Thulasiraman, and Ruppa K. Thulasiram. Parallel ant brood graph partitioning in Julia. In *Parallel Processing and Applied Mathematics*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2016. URL `http://link.springer.com/chapter/10.1007/978-3-319-32152-3_17`.

Creel:2016:NJM

[Cre16] Michael Creel. A note on Julia and MPI, with code examples. *Computational Economics*, 48 (3):??, 2016. CODEN CNOMEL. URL `http://link.springer.com/article/10.1007/s10614-015-9516-5`.

Christ:2023:PJU

[CSR+23] Simon Christ, Daniel Schwabeneder, Christopher Rackauckas, Michael Krabbe Borregaard, and Thomas Breloff. `Plots.jl` — a user extendable plotting API for the Julia programming language. *Journal of Open Research Software*, 11(1): ??, ???? 2023. CODEN ???? ISSN 2049-9647. URL `https://openresearchsoftware.metajnl.com/articles/10.5334/jors.431`.

Dan:2018:LJE

[Dan18] Toomey Dan. *Learning Jupyter 5: explore interactive computing using Python, Java, JavaScript, R, Julia, and JupyterLab*. Packt Publishing, Birmingham, UK, 2018. ISBN 1-78913-740-3, 1-78913-744-6. 282 pp. LCCN Q183.9; QA76.9.I52 .T666 2018.

Datseris:2017:PDJ

[Dat17] George Datseris. `DynamicalBilliards.jl`: An easy-to-use, modular and extendable Julia package for Dynamical Billiard systems in two dimensions. *Journal of Open Source Software*, 2(19):458:1–458:4, November 2017. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00458`.

Datseris:2018:PDJ

[Dat18] George Datseris. `DynamicalSystems.jl`: A Julia software library for chaos and nonlinear dynamics. *Journal of Open Source Software*, 3(23):598:1–598:5, March 2018. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00598`.

Dogaru:2015:UPJ

[DD15] Ioana Dogaru and Radu Dogaru. Using Python and Julia for efficient implementation of natural computing and complexity related algorithms. In IEEE, editor, *2015 20th International Conference on Control Systems and Computer Science*, pages 599–604. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Dunning:2017:JML

[DHL17] Iain Dunning, Joey Huchette, and Miles Lubin. JuMP: a modeling language for mathematical optimization. *SIAM Review*, 59 (2):295–320, January 2017. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Drakopoulos:2020:ODC

[DK20] Georgios Drakopoulos and Eleanna Kafeza. One dimensional cross-correlation methods for deterministic and stochastic graph signals with a Twitter application in Julia. In IEEE, editor, *2020 5th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Dowson:2021:PSJ

[DK21] Oscar Dowson and Lea Kapelevich. `SDDP.jl`: A Julia package for stochastic dual dynamic programming. *INFORMS Journal on Computing*, 33(1):27–33, Winter 2021. CODEN ???? ISSN 1091-9856 (print), 1526-5528 (electronic). URL `https://pubsonline.informs.org/doi/pdf/10.1287/ijoc.2020.0987`.

Downey:2019:TJ

[DL19] Allen B. Downey and Ben Lauwens. *Think Julia*. O'Reilly

Media, Inc., 1005 Gravenstein Highway North, Sebastopol, CA 95472, USA, 2019. ISBN 1-4920-4500-4 (e-book), 1-4920-4503-9. LCCN QA76.73.J85 L38 2019.

Dinari:2019:DMI

[DYFF19] Or Dinari, Angel Yu, Oren Freifeld, and John Fisher. Distributed MCMC inference in Dirichlet process mixture models using Julia. In IEEE, editor, *2019 19th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID)*, pages 518–525. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Edelman:2015:JFA

[Ede15a] Alan Edelman. Julia: a fresh approach to parallel programming. In IEEE, editor, *2015 IEEE International Parallel and Distributed Processing Symposium*, page 517. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Edelman:2015:JI

[Ede15b] Alan Edelman. Julia introduction. In IEEE, editor, *2015 IEEE International Parallel and Distributed Processing Symposium Workshop*, page 1271. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Edelman:2017:MOE

[Ede17] Alan Edelman. A more open efficient future for AI development and data science with an introduction to Julia. In IEEE, editor, *2017 IEEE International Conference on Big Data (Big Data)*, page 2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Eschle:2023:PJP

[EGG+23] Jonas Eschle, Tamás Gál, Mosè Giordano, Philippe Gras, Benedikt Hegner, Lukas Heinrich, Uwe Hernandez Acosta, Stefan Kluth, Jerry Ling, Pere Mato, Mikhail Mikhasenko, Alexander Moreno Briceño, Jim Pivarski, Konstantinos Samaras-Tsakiris, Oliver Schulz, Graeme Andrew Stewart, Jan Strube, and Vassil Vassilev. Potential of the Julia programming language for high energy physics computing. *Computing and Software for Big Science*, 7(1):??, December 2023. CODEN ???? ISSN 2510-2036 (print), 2510-2044 (electronic). URL `https://link.springer.com/article/10.1007/s41781-023-00104-x`.

Elmqvist:2016:SMP

[EHO16] Hilding Elmqvist, Toivo Henningsson, and Martin Otter. Systems modeling and programming in a unified environment based on Julia. In *Leveraging Applications of Formal Methods, Verification and Validation: Discussion, Dissemination, Appli-*

cations, pages 198–217. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2016. URL `http://link.springer.com/chapter/10.1007/978-3-319-47169-3_15`.

Engheim:2023:HDJ

[Eng23] Erik Engheim. *Julia as a Second Language: General Purpose Programming with a Taste of Data Science*. Manning Publications, Shelter Island, NY, USA, 2023. ISBN 1-61729-971-5 (paperback). xxvi + 372 pp. LCCN QA76.73.J85 .E544 2023.

Fathurrahman:2020:PPJ

[FASD20a] Fadjar Fathurrahman, Mohammad Kemal Agusta, Adhitya Gandaryus Saputro, and Hermawan Kresno Dipojono. `PWDFT.jl`: a Julia package for electronic structure calculation using density functional theory and plane wave basis. *Computer Physics Communications*, 256:107372, 2020. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0010465520301600`.

Fathurrahman:2020:PJJ

[FASD20b] Fadjar Fathurrahman, Mohammad Kemal Agusta, Adhitya Gandaryus Saputro, and Hermawan Kresno Dipojono. PWDFT.jl: a Julia package for electronic structure calculation using density functional theory and plane wave basis. *Computer Physics Communications*, 256 (??):Article 107372, November 2020. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465520301600`.

Fieker:2017:NH

[FHHJ17] Claus Fieker, William Hart, Tommy Hofmann, and Fredrik Johansson. Nemo/Hecke. In *Proceedings of the 2017 ACM on International Symposium on Symbolic and Algebraic Computation*. ACM Press, New York, NY 10036, USA, July 2017.

Farhana:2019:SPE

[FIR19] Effat Farhana, Nasif Imtiaz, and Akond Rahman. Synthesizing program execution time discrepancies in Julia used for scientific software. In IEEE, editor, *2019 IEEE International Conference on Software Maintenance and Evolution (ICSME)*, pages 496–500. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Fischer:2019:BRD

[Fis19] Daniel Fischer. Book review: *Data Science with Julia*, Paul D. McNicholas and Peter A. Tait, CRC Press, 2019, 220 pages, £37.59, paperback, ISBN: 978-1-138-49998-0. *International Statistical Review = Revue Internationale de Statistique*, 87(2): 445–446, August 2019. CO-

DEN ISTRDP. ISSN 0306-7734 (print), 1751-5823 (electronic).

Fourie:2016:NBS

[FLK16] D. Fourie, J. Leonard, and M. Kaess. A nonparametric belief solution to the Bayes tree. In *2016 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pages 2189–2196. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Frost:2016:PGJ

[Fro16] Simon D. W. Frost. `Gillespie.jl`: Stochastic simulation algorithm in Julia. *Journal of Open Source Software*, 1(3):42:1, July 2016. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00042`.

Frison:2020:BAB

[FSZD20] Gianluca Frison, Tommaso Sartor, Andrea Zanelli, and Moritz Diehl. The BLAS API of BLASFEO. *ACM Transactions on Mathematical Software*, 46(2):1–36, June 2020. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Garcia:2024:BJM

[GBS24] Joaquim Dias Garcia, Guilherme Bodin, and Alexandre Street. BilevelJuMP.jl: Modeling and solving bilevel optimization problems in Julia. *INFORMS Journal on Computing*, 36(2):327–335, March/April 2024. CODEN ???? ISSN 1091-9856 (print), 1526-5528 (electronic). URL `https://pubsonline.informs.org/doi/full/10.1287/ijoc.2022.0135`.

Geth:2020:CVF

[GCD20] F. Geth, S. Claeys, and G. Deconinck. Current-voltage formulation of the unbalanced optimal power flow problem. In *2020 8th Workshop on Modeling and Simulation of Cyber-Physical Energy Systems*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Giordano:2022:PMP

[GKC22] Mosè Giordano, Milan Klöwer, and Valentin Churavy. Productivity meets performance: Julia on A64FX. In IEEE, editor, *2022 IEEE International Conference on Cluster Computing (CLUSTER)*, pages 549–555. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Gevorkyan:2019:SSC

[GKKL19] Migran N. Gevorkyan, Anna V. Korolkova, Dmitry S. Kulyabov, and Konstantin P. Lovetskiy. Statistically significant comparative performance testing of Julia and Fortran languages in case of Runge–Kutta methods. In *Numerical Methods and Applications*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2019. URL `http://link.springer.com/chapter/`

10.1007/978-3-030-10692-8_45.

Gawron:2018:PQJ

[GKP18] Piotr Gawron, Dariusz Kurzyk, and Łukasz Pawela. `QuantumInformation.jl` — a Julia package for numerical computation in quantum information theory. *PLoS One*, 13 (12):e0209358, December 2018. CODEN POLNCL. ISSN 1932-6203.

Gonzalez:2016:CMC

[GLB16] J. D. Gonzalez, E. F. Lavia, and S. Blanc. A computational method to calculate the exact solution for acoustic scattering by fluid spheroids. *Acta Acustica united with Acustica*, 102(6): 1061–1071, November 2016.

Gjersvik:2019:PSA

[GM19] A. Gjersvik and R. J. Moss. A parallel simulation approach to ACAS X development. In *2019 IEEE High Performance Extreme Computing Conference (HPEC)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Glos:2019:PQJ

[GMO19] Adam Glos, Jarosław Adam Miszczak, and Mateusz Ostaszewski. `QSWalk.jl`: Julia package for quantum stochastic walks analysis. *Computer Physics Communications*, 235 (??):414–421, February 2019. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0010465518303151`.

Gao:2020:JLM

[GMP+20] Kaifeng Gao, Gang Mei, Francesco Piccialli, Salvatore Cuomo, Jingzhi Tu, and Zenan Huo. Julia language in machine learning: Algorithms, applications, and open issues. *Computer Science Review*, 37:100254, August 2020. ISSN 1574-0137 (print), 1876-7745 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S157401372030071X`.

Goke:2021:AJJ

[Gök21] Leonard Göke. `AnyMOD.jl`: a Julia package for creating energy system models. *SoftwareX*, 16(??):??, December 2021. CODEN ???? ISSN 2352-7110. URL `http://www.sciencedirect.com/science/article/pii/S2352711021001382`.

Goualard:2020:GRF

[Gou20] Frédéric Goualard. Generating random floating-point numbers by dividing integers: a case study. In Krzhizhanovskaya et al. [KZL+20], pages 15–28. ISBN 3-030-50416-6, 3-030-50417-4 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). URL `https://link.springer.com/book/10.1007/978-3-030-50417-5`.

Godoy:2023:EPP

[GVLD+23] William F. Godoy, Pedro Valero-Lara, T. Elise Dettling, Christian

Trefftz, Ian Jorquera, Thomas Sheehy, Ross G. Miller, Marc Gonzalez-Tallada, Jeffrey S. Vetter, and Valentin Churavy. Evaluating performance and portability of high-level programming models: Julia, Python/Numba, and Kokkos on exascale nodes. In IEEE, editor, *2023 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)*, pages 373–382. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Helmreich:2020:BRD

[Hel20] James E. Helmreich. Book review: *Data Science with Julia*. *Journal of Statistical Software*, 94(??):??, ???? 2020. CODEN JSSOBK. ISSN 1548-7660. URL `https://www.jstatsoft.org/index.php/jss/article/view/v094b01`; `https://www.jstatsoft.org/index.php/jss/article/view/v094b01/v94b01.pdf`.

Hylton:2017:PEC

[HHPSS17] A. Hylton, G. Henselman-Petrusek, J. Sang, and R. Short. Performance enhancement of a computational persistent homology package. In *2017 IEEE 36th International Performance Computing and Communications Conference (IPCCC)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Humenberger:2018:AJT

[HJK18a] Andreas Humenberger, Maximilian Jaroschek, and Laura Kovács. `Aligator.jl` — a Julia package for loop invariant generation. In *Lecture Notes in Computer Science*, pages 111–117. Springer International Publishing, Cham, Switzerland, 2018.

Humenberger:2018:PAJ

[HJK18b] Andreas Humenberger, Maximilian Jaroschek, and Laura Kovács. `Aligator.jl` — a Julia package for loop invariant generation. In *Intelligent Computer Mathematics*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2018. URL `http://link.springer.com/chapter/10.1007/978-3-319-96812-4_10`.

Huo:2020:DEP

[HMCG20] Zenan Huo, Gang Mei, Giampaolo Casolla, and Fabio Giampaolo. Designing an efficient parallel spectral clustering algorithm on multi-core processors in Julia. *Journal of Parallel and Distributed Computing*, 138 (??):211–221, April 2020. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0743731519308743`.

Huo:2021:JJB

[HMX21a] Zenan Huo, Gang Mei, and Nengxiong Xu. juSFEM: a Julia-based open-source package of

parallel Smoothed Finite Element Method (S-FEM) for elastic problems. *Computers and Mathematics with Applications*, 81(??):459–477, January 1, 2021. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0898122120300523`.

Huo:2021:PJJ

[HMX21b] Zenan Huo, Gang Mei, and Nengxiong Xu. `juSFEM`: a Julia-based open-source package of parallel Smoothed Finite Element Method (S-FEM) for elastic problems. *Computers and Mathematics with Applications*, 81:459–477, 2021. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0898122120300523`. Development and Application of Open-source Software for Problems with Numerical PDEs.

Hoffimann:2018:PGJ

[Hof18] Júlio Hoffimann. `GeoStats.jl` — high-performance geostatistics in Julia. *Journal of Open Source Software*, 3(24):692:1–692:4, April 2018. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00692`.

Hunold:2020:BJC

[HS20] Sascha Hunold and Sebastian Steiner. Benchmarking Julia's communication performance: Is Julia HPC ready or full HPC? In IEEE, editor, *2020 IEEE/ACM Performance Modeling, Benchmarking and Simulation of High Performance Computer Systems (PMBS)*, pages 20–25. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Heitzinger:2014:JNH

[HT14] Clemens Heitzinger and Gerhard Tulzer. Julia and the numerical homogenization of PDEs. In IEEE, editor, *2014 First Workshop for High Performance Technical Computing in Dynamic Languages*, pages 36–40. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Heirendt:2017:PDJ

[HTF17] Laurent Heirendt, Ines Thiele, and Ronan M. T. Fleming. `DistributedFBA.jl`: High-level, high-performance flux balance analysis in Julia. *Bioinformatics*, pages 1–3, January 2017. ISSN 1367-4803 (print), 1367-4811 (electronic).

Hernandez:2020:IJS

[HVW+20] Miguel Hernandez, Damian Valles, David C. Wierschem, Rachel M. Koldenhoven, George Koutitas, Francis A. Mendez, Semih Aslan, and Jesus Jimenez. An initial Julia simulation approach to material handling operations from motion captured data. In IEEE, editor, *2020 11th IEEE Annual Information*

Technology, Electronics and Mobile Communication Conference (IEMCON), pages 0718–0722. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Huang:2019:PCJ

[HXW+19] Ruizhu Huang, Weijia Xu, Yinzhi Wang, Silvia Liverani, and Ann E. Stapleton. Performance comparison of Julia distributed implementations of Dirichlet process mixture models. In IEEE, editor, *2019 IEEE International Conference on Big Data (Big Data)*, pages 3350–3354. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Innes:2018:PFE

[Inn18] Mike Innes. `Flux`: Elegant machine learning with Julia. *Journal of Open Source Software*, 3(25):602:1, May 2018. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00602`.

Jacobsen:2017:GSJ

[JNR17] Robert Dahl Jacobsen, Morten Nielsen, and Morten Grud Rasmussen. Generalized sampling in Julia. *Journal of Open Research Software*, 5(1):12–??, April 20, 2017. CODEN ???? ISSN 2049-9647. URL `https://openresearchsoftware.metajnl.com/articles/10.5334/jors.157/`.

Joshi:2016:JDS

[Jos16] Anshul Joshi. *Julia for data science: explore the world of data science from scratch with Julia by your side*. Packt Publishing, Birmingham, UK, 2016. ISBN 1-78355-386-3 (e-book), 1-78528-969-1. 339 pp. LCCN QA76.73.J8; T55.4-60.8.

Kaminski:2023:JDA

[Kam23] Bogumił Kamiński. *Julia for Data Analysis*. Manning Publications, Shelter Island, NY, USA, 2023. xxv + 443 pp.

Knopp:2023:NJG

[KBG23] Tobias Knopp, Marija Boberg, and Mirco Grosser. NFFT.jl: Generic and fast Julia implementation of the Nonequidistant Fast Fourier Transform. *SIAM Journal on Scientific Computing*, 45(3):??, ???? 2023. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic). URL `https://epubs.siam.org/doi//doi/10.1137/22M1510935`.

Kroger:2018:JOS

[KCHN18] Ole Kröger, Carleton Coffrin, Hassan Hijazi, and Harsha Nagarajan. Juniper: an open-source nonlinear branch-and-bound solver in Julia. In *Integration of Constraint Programming, Artificial Intelligence, and Operations Research*, pages 377–386. Springer International Publishing, Cham, Switzerland, 2018. URL `http://link.springer.`

com/chapter/10.1007/978-3-319-93031-2_27.

Kieffer:2018:IBC

[KD18] Jean Kieffer and Luca De Feo. Isogeny-based cryptography in Julia/Nemo: a case study. *ACM Communications in Computer Algebra*, 52(4):130–132, December 2018. CODEN ???? ISSN 1932-2232 (print), 1932-2240 (electronic).

Koolen:2019:JRS

[KD19] Twan Koolen and Robin Deits. Julia for robotics: simulation and real-time control in a high-level programming language. In IEEE, editor, *2019 International Conference on Robotics and Automation (ICRA)*, pages 604–611. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Khan:2020:COF

[KIT20] H. Khan, H. Issa, and J. K. Tar. Comparison of the operation of fixed point iteration-based adaptive and robust VS/SM-type solutions for controlling two coupled fluid tanks. In *2020 IEEE 20th International Symposium on Computational Intelligence and Informatics (CINTI)*, pages 29–34. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Kaluba:2020:PPJ

[KLT20] Marek Kaluba, Benjamin Lorenz, and Sascha Timme. `Polymake.jl`: a new interface to `polymake`. In Bigatti et al. [BCD+20], pages 377–385.

Kannan:2020:EAM

[KN20] G. Padmasudha Kannan and K. V. Nagaraja. An efficient automatic mesh generator with parabolic arcs in Julia for computation of TE and TM modes for waveguides. *IEEE Access*, 8: 109508–109521, 2020. ISSN 2169-3536.

Knopp:2014:EMT

[Kno14] Tobias Knopp. Experimental multi-threading support for the Julia programming language. In IEEE, editor, *2014 First Workshop for High Performance Technical Computing in Dynamic Languages*, pages 1–5. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Kramer:2018:PQJ

[KPOR18] Sebastian Krämer, David Plankensteiner, Laurin Ostermann, and Helmut Ritsch. `QuantumOptics.jl`: a Julia framework for simulating open quantum systems. *Computer Physics Communications*, 227(??):109–116, June 2018. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0010465518300328`.

Kastner:2023:AAA

[KR23a] Felix Kastner and Andreas Rößler. An analysis of ap-

proximation algorithms for iterated stochastic integrals and a Julia and Matlab simulation toolbox. *Numerical Algorithms*, 93(1):27–66, May 2023. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `https://link.springer.com/article/10.1007/s11075-022-01401-z`.

Ketcheson:2023:CBS

[KR23b] David I. Ketcheson and Hendrik Ranocha. Computing with B-series. *ACM Transactions on Mathematical Software*, 49(2): 13:1–13:??, June 2023. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3573384`.

Kemmer:2018:NJE

[KRH18] Thomas Kemmer, Sergej Rjasanow, and Andreas Hildebrandt. `NESSie.jl` — efficient and intuitive finite element and boundary element methods for nonlocal protein electrostatics in the Julia language. *Journal of Computational Science*, 28:193–203, September 2018. CODEN ???? ISSN 1877-7503 (print), 1877-7511 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S187775031730738X`.

Kaminski:2018:JPC

[KS18] Bogumił Kamiński and Przemysław Szufel. *Julia 1.0 Programming Cookbook: over 100 numerical and distributed computing recipes for your daily data science workflow*. Packt Publishing, Birmingham, UK, 2018. ISBN 1-78899-836-7 (paperback). xiii + 439 pp. LCCN QA76.73.J85.

Kyesswa:2020:NJB

[KSÇ+20] Michael Kyesswa, Philipp Schmurr, Hüseyin K. Çakmak, Uwe Kühnapfel, and Veit Hagenmeyer. A new Julia-based parallel time-domain simulation algorithm for analysis of power system dynamics. In IEEE, editor, *2020 IEEE/ACM 24th International Symposium on Distributed Simulation and Real Time Applications (DS-RT)*, pages 1–9. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Kwon:2016:JPO

[Kwo16] Changhyun Kwon. *Julia programming for operations research: a primer on computing*. CreateSpace Independent Publishing Platform, North Charleston, SC, USA, 2016. ISBN 1-5333-2879-X, 1-63462-196-4. x + 236 pp. LCCN QA76.73.J85 K86 2016.

Kwon:2019:JPO

[Kwo19a] Changhyun Kwon. *Julia programming for operations research*. Independently published, North Charleston, SC, USA, second edition, 2019. ISBN 1-79820-547-5. x + 250 pp. LCCN QA76.73.J85 K8-62-019.

Kwong:2019:HDP

[Kwo19b] Tom Kwong. *Hands-on design patterns with Julia 1.0: a comprehensive guide to build robust, reusable, and easily maintainable applications*. Packt Publishing, Birmingham, UK, 2019. ISBN 1-83864-661-2, 1-83864-661-2 (PDF). 532 pp. LCCN QA76.73.J85.

Krzhizhanovskaya:2020:CSI

[KZL+20] Valeria V. Krzhizhanovskaya, Gábor Závodszky, Michael H. Lees, Jack J. Dongarra, Peter M. A. Sloot, Sérgio Brissos, and João Teixeira, editors. *Computational Science — ICCS 2020 20th International Conference, Amsterdam, The Netherlands, June 3–5, 2020, Proceedings, Part II*, volume 12138 of *Lecture Notes in Computer Science*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2020. ISBN 3-030-50416-6, 3-030-50417-4 (e-book). ISSN 0302-9743 (print), 1611-3349 (electronic). URL `https://link.springer.com/book/10.1007/978-3-030-50417-5`.

Lauwens:2017:PRC

[Lau17] Ben Lauwens. `ResumableFunctions`: C# sharp style generators for Julia. *Journal of Open Source Software*, 2(18):400:1–400:2, October 2017. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00400`.

Lara:2021:PJP

[LBT+21] José Daniel Lara, Clayton Barrows, Daniel Thom, Dheepak Krishnamurthy, and Duncan Callaway. `PowerSystems.jl` — a power system data management package for large scale modeling. *SoftwareX*, 15(??):??, July 2021. CODEN ???? ISSN 2352-7110. URL `http://www.sciencedirect.com/science/article/pii/S2352711021000765`.

Lubin:2015:COR

[LD15] Miles Lubin and Iain Dunning. Computing in operations research using Julia. *INFORMS Journal on Computing*, 27(2):238–248, Spring 2015. CODEN ???? ISSN 1091-9856 (print), 1526-5528 (electronic). URL `https://pubsonline.informs.org/doi/abs/10.1287/ijoc.2014.0623`.

Lauwens:2019:TJH

[LD19] Ben Lauwens and Allen Downey. *Think Julia: how to think like a computer scientist*. O'Reilly Media, Inc., 1005 Gravenstein Highway North, Sebastopol, CA 95472, USA, 2019. ISBN 1-4920-4503-9. xviii + 276 pp. LCCN QA76.73.J85. URL `http://proquest.safaribooksonline.com/?fpi=9781492045021`.

Lau:2020:DSC

[LDMG20] S. Lau, I. Drosos, J. M. Markel, and P. J. Guo. The design space of computational notebooks: An analysis of 60 systems in academia and industry.

In *2020 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)*, pages 1–11. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Lage-Freitas:2018:ADS

[LFROF18] A. Lage-Freitas, R. P. Ribeiro, N. D. C. Oliveira, and A. C. Frery. An automatic deployment support for processing remote sensing data in the cloud. In *IGARSS 2018 — 2018 IEEE International Geoscience and Remote Sensing Symposium*, pages 2054–2057. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Lavaud:2021:ABT

[LGGB21] Corentin Lavaud, Robin Gerzaguet, Matthieu Gautier, and Olivier Berder. AbstractSDRs: Bring down the two-language barrier with Julia language for efficient SDR prototyping. *IEEE Embedded Systems Letters*, 13(4): 166–169, 2021. ISSN 1943-0663 (print), 1943-0671 (electronic).

Liu:2021:SDC

[LMM21] Lun Liu, Todd Millstein, and Madanlal Musuvathi. Safe-by-default concurrency for modern programming languages. *ACM Transactions on Programming Languages and Systems*, 43(3): 10:1–10:50, September 2021. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic). URL `https://dl.acm.org/doi/10.1145/3462206`.

Lin:2021:CJP

[LMS21] Wei-Chen Lin and Simon McIntosh-Smith. Comparing Julia to performance portable parallel programming models for HPC. In IEEE, editor, *2021 International Workshop on Performance Modeling, Benchmarking and Simulation of High Performance Computer Systems (PMBS)*, pages 94–105. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Lobianco:2019:IJO

[Lob19a] Antonello Lobianco. Interfacing Julia with other languages. In *Julia Quick Syntax Reference*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2019. URL `http://link.springer.com/chapter/10.1007/978-1-4842-5190-4_7`.

Lobianco:2019:JQS

[Lob19b] Antonello Lobianco. *Julia quick syntax reference: a pocket guide for data science programming*. Apress, Berkeley, CA, USA, 2019. ISBN 1-4842-5189-X, 1-4842-5190-3 (e-book). xvii + 216 + 66 pp. LCCN QA76.73.J85. URL `http://link.springer.com/book/10.1007/978-1-4842-5190-4`.

Luo:2022:JJB

[LQM22] Mimi Luo, Jiayu Qin, and Gang Mei. `juSPH`: a Julia-based

open-source package of parallel Smoothed Particle Hydrodynamics (SPH) for dam break problems. *SoftwareX*, 19(??):??, July 2022. CODEN ???? ISSN 2352-7110. URL `http://www.sciencedirect.com/science/article/pii/S2352711022000954`.

Landeros:2018:PBJ

[LSK+18] Alfonso Landeros, Timothy Stutz, Kevin L. Keys, Alexander Alekseyenko, Janet S. Sinsheimer, Kenneth Lange, and Mary E. Sehl. `BioSimulator.jl`: Stochastic simulation in Julia. *Computer Methods and Programs in Biomedicine*, 167: 23–35, December 2018. CODEN CMPBEK. ISSN 0169-2607 (print), 1872-7565 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0169260718301822`.

Langer:2020:OHE

[LV20] Lissy Langer and Thomas Volling. An optimal home energy management system for modulating heat pumps and photovoltaic systems. *Applied Energy*, 278: 115661, November 2020.

Maincon:2022:EJE

[Mai22] Philippe Mainçon. `EspyInsideFunction.jl` — extracting intermediate results from numerical functions. *SoftwareX*, 19(??):??, July 2022. CODEN ???? ISSN 2352-7110. URL `http://www.sciencedirect.com/science/article/pii/S2352711022001194`.

Medeiros:2019:USP

[MC19] Johannes D. Medeiros, Jr. and Eduardo T. Costa. Ultrasound signal processing using the Julia programming language. In *XXVI Brazilian Congress on Biomedical Engineering*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2019. URL `http://link.springer.com/chapter/10.1007/978-981-13-2517-5_77`.

Merrell:2020:ISP

[MG20] David Merrell and Anthony Gitter. Inferring signaling pathways with probabilistic programming. *Bioinformatics*, 36 (Supplement_2):i822–i830, December 2020. ISSN 1367-4803 (print), 1367-4811 (electronic).

Milechin:2017:DED

[MGS+17] Lauren Milechin, Vijay Gadepally, Siddharth Samsi, Jeremy Kepner, Alexander Chen, and Dylan Hutchison. D4M 3.0: Extended database and language capabilities. In *2017 IEEE High Performance Extreme Computing Conference (HPEC)*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, September 2017.

Moille:2019:PFU

[MLXS19] Gregory Moille, Qing Li, Lu Xiyuan, and Kartik Srinivasan. pyLLE: a fast and user friendly Lugiato–Lefever equation solver. *Journal of research of the National*

Institute of Standards and Technology, 124, May 2019. CODEN JRITEF. ISSN 1044-677X (print), 2165-7254 (electronic).

Maidens:2016:PDP

[MPA16] J. Maidens, A. Packard, and M. Arcak. Parallel dynamic programming for optimal experiment design in nonlinear systems. In *2016 IEEE 55th Conference on Decision and Control (CDC)*, pages 2894–2899. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Mogensen:2018:POM

[MR18] Patrick K. Mogensen and Asbjørn N. Riseth. `Optim`: A mathematical optimization package for Julia. *Journal of Open Source Software*, 3(24):615:1–615:3, April 2018. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00615`.

Mamidi:2022:PAG

[MSP+22] Nischay Ram Mamidi, Dhruv Saxena, Kumar Prasun, Anil Nemili, Bharatkumar Sharma, and S. M. Deshpande. Performance analysis of GPU accelerated meshfree q-LSKUM solvers in Fortran, C, Python, and Julia. In IEEE, editor, *2022 IEEE 29th International Conference on High Performance Computing, Data, and Analytics (HiPC)*, pages 156–165. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Moura:2019:UJP

[MSS+19] Rodolfo A. R. Moura, Marco A. O. Schroeder, Samuel J. S. Silva, Erivelton G. Nepomuceno, Pedro H. N. Vieira, and Antonio C. S. Lima. The usage of Julia programming in grounding grids simulations: An alternative to MATLAB and Python. In IEEE, editor, *2019 International Symposium on Lightning Protection (XV SIPDA)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

McNicholas:2018:DSJ

[MT18] Paul D. McNicholas and Peter A. Tait. *Data Science with Julia*. Taylor and Francis, CRC Press, Boca Raton, FL, USA, 2018. ISBN 1-138-49998-6 (paperback), 1-351-01364-5 (e-book: Mobipocket), 1-351-01365-3 (e-book), 1-351-01366-1 (e-book: PDF), 1-351-01367-X (e-book). 241 pp. LCCN QA76.73.J85 M37 2018.

McNicholas:2019:DSJ

[MT19] Paul D. McNicholas and Peter A. Tait. *Data science with Julia*. Chapman and Hall/CRC, Boca Raton, FL, USA, 2019. ISBN 1-138-49999-4, 1-351-01364-5, 1-351-01365-3, 1-351-01366-1, 1-351-01367-X. xix + 220 pp. LCCN QA76.73.J85 M37 2019eb.

Moore:2017:ITI

[MVWL17] D. G. Moore, G. Valentini, S. I. Walker, and M. Levin. Inform: a toolkit for information-

theoretic analysis of complex systems. In *2017 IEEE Symposium Series on Computational Intelligence (SSCI)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Nagar:2017:BMJ

[Nag17a] Sandeep Nagar. Basic math with Julia. In *Beginning Julia Programming*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2017. URL `http://link.springer.com/chapter/10.1007/978-1-4842-3171-5_3`.

Nagar:2017:BJP

[Nag17b] Sandeep Nagar. *Beginning Julia Programming: For Engineers and Scientists*. Apress, Berkeley, CA, USA, 2017. ISBN 1-4842-3170-8, 1-4842-3171-6. xxi + 351 + 20 + 18 pp. LCCN QA76.7-76.73; QA76.76.C65. URL `http://www.springerlink.com/content/978-1-4842-3171-5`.

Nardelli:2018:JSR

[NBP+18] Francesco Zappa Nardelli, Julia Belyakova, Artem Pelenitsyn, Benjamin Chung, Jeff Bezanson, and Jan Vitek. Julia subtyping: a rational reconstruction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):113:1–113:27, October 2018. ISSN 2475-1421. URL `https://dl.acm.org/doi/abs/10.1145/3276483`.

Nazarathy:2021:SJF

[NK21] Yoni Nazarathy and Hayden Klok. *Statistics with Julia: Fundamentals for Data Science, Machine Learning and Artificial Intelligence*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2021. ISBN 3-030-70901-9. ISSN 2365-5674. xvi + 532 pp. LCCN ???? URL `https://www.springer.com/us/book/9783030709006`.

odyga:2021:PIP

[oC21] Wiktor odyga and Bartosz Chaber. Parallel implementation of a Particle-in-Cell code in Julia programming language. In IEEE, editor, *2021 22nd International Conference on Computational Problems of Electrical Engineering (CPEE)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Ovsyak:2015:AMA

[OOBP15] V. Ovsyak, O. Ovsyak, D. Bui, and J. Petruszka. Algebraic models of application of computer systems and information technologies. In *2015 IEEE 13th International Scientific Conference on Informatics*, pages 189–194. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Olver:2014:PFI

[OT14] S. Olver and A. Townsend. A

practical framework for infinite-dimensional linear algebra. In *2014 First Workshop for High Performance Technical Computing in Dynamic Languages*, pages 57–62. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

OMalley:2016:TJH

[OV16] Daniel O'Malley and Velimir V. Vesselinov. ToQ.jl: a high-level programming language for D-Wave machines based on Julia. In IEEE, editor, *2016 IEEE High Performance Extreme Computing Conference (HPEC)*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Pastell:2017:PWJ

[Pas17] Matti Pastell. `Weave.jl`: Scientific reports using Julia. *Journal of Open Source Software*, 2 (11):204:1, March 2017. CODEN ???? ISSN 2475-9066. URL `http://joss.theoj.org/papers/10.21105/joss.00204`.

Psarras:2022:LAM

[PBB22] Christos Psarras, Henrik Barthels, and Paolo Bientinesi. The linear algebra mapping problem. Current state of linear algebra languages and libraries. *ACM Transactions on Mathematical Software*, 48(3):26:1–26:??, September 2022. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic). URL `https://dl.acm.org/doi/10.1145/3549935`.

Pelenitsyn:2021:TSJ

[PBC+21] Artem Pelenitsyn, Julia Belyakova, Benjamin Chung, Ross Tate, and Jan Vitek. Type stability in Julia: avoiding performance pathologies in JIT compilation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):150:1–150:26, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL `https://dl.acm.org/doi/10.1145/3485527`.

Poulding:2017:ART

[PF17] S. Poulding and R. Feldt. Automated random testing in multiple dispatch languages. In *2017 IEEE International Conference on Software Testing, Verification and Validation (ICST)*, pages 333–344. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Plietzsch:2022:PJE

[PKA+22] Anton Plietzsch, Raphael Kogler, Sabine Auer, Julia Merino, Asier Gil de Muro, Jan Liße, Christina Vogel, and Frank Hellmann. `PowerDynamics.jl` — an experimentally validated open-source package for the dynamical analysis of power grids. *SoftwareX*, 17(??):??, January 2022. CODEN ???? ISSN 2352-7110. URL `http://www.sciencedirect.com/science/article/pii/S2352711021001345`.

Pelletier:2021:GJP

[PKDM21] Michel Pelletier, Will Kimmerer, Timothy A. Davis, and Timothy G. Mattson. The GraphBLAS in Julia and Python: the PageRank and triangle centralities. In IEEE, editor, *2021 IEEE High Performance Extreme Computing Conference (HPEC)*, pages 1–7. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Plankensteiner:2019:CDS

[Pla19] David Plankensteiner. Collective dynamics and spectroscopy of coupled quantum emitters. M.Sc. thesis, Universität Innsbruck, Innsbruck, Austria, May 2019. ix + 193 pp. URL `http://data.onb.ac.at/rec/AC15419096`.

Postnicov:2024:ECC

[PSK+24] Vasily Postnicov, Aleksei Samarin, Marina V. Karsanina, Mathieu Gravey, Aleksey Khlyupin, and Kirill M. Gerke. Evaluation of classical correlation functions from 2/3D images on CPU and GPU architectures: Introducing `CorrelationFunctions.jl`. *Computer Physics Communications*, 299(??):??, June 2024. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465524000572`.

PadmasudhaKannan:2020:AHO

[PSN20] G. Padmasudha Kannan, T. V. Smitha, and K. V. Nagaraja. Automated high-order curved mesh generator with high-level dynamic programming language Julia for photonic applications. *Materials Today: Proceedings*, 2020. ISSN 2214-7853. URL `https://www.sciencedirect.com/science/article/pii/S2214785320374319`.

Przigoda:2015:VDD

[PSS+15] N. Przigoda, J. Stoppe, J. Seiter, R. Wille, and R. Drechsler. Verification-driven design across abstraction levels: a case study. In *2015 Euromicro Conference on Digital System Design*, pages 375–382. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Rahman:2023:ECS

[RBSP23] Akond Rahman, Dibyendu Brinto Bose, Raunak Shakya, and Rahul Pandita. *Come for syntax, stay for speed, understand defects*: an empirical study of defects in Julia programs. *Empirical Software Engineering*, 28(4):??, July 2023. CODEN ESENFW. ISSN 1382-3256 (print), 1573-7616 (electronic). URL `https://link.springer.com/article/10.1007/s10664-023-10328-5`.

Rossini:2023:FJO

[RER23] Matteo Rossini, Hakan Ergun, and Marco Rossi. FlexPlan.jl — an open-source Julia tool for holistic transmission and distribution grid planning. In IEEE, editor, *2023 Open Source Mod-*

elling and Simulation of Energy Systems (OSMSES), pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Regier:2019:CVU

[RFP+19] Jeffrey Regier, Keno Fischer, Kiran Pamnany, Andreas Noack, Jarrett Revels, Maximilian Lama, Steve Howard, Ryan Giordano, David Schlegel, Jon McAuliffe, Rollin Thomas, and Prabhat. Cataloging the visible universe through Bayesian inference in Julia at petascale. *Journal of Parallel and Distributed Computing*, 127(??):89–104, May 2019. CODEN JPDCER. ISSN 0743-7315 (print), 1096-0848 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0743731518304672`.

Rackauckas:2022:CMS

[RGJ+22] Chris Rackauckas, Maja Gwozdz, Anand Jain, Yingbo Ma, Francesco Martinuzzi, Utkarsh Rajput, Elliot Saba, Viral B. Shah, Ranjan Anantharaman, Alan Edelman, Shashi Gowda, Avik Pal, and Chris Laughman. Composing modeling and simulation with machine learning in Julia. In IEEE, editor, *2022 Annual Modeling and Simulation Conference (ANNSIM)*, pages 1–17. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2022.

Rackauckas:2017:PDJ

[RN17] Christopher Rackauckas and Qing Nie. `DifferentialEquations.jl` — a performant and feature-rich ecosystem for solving differential equations in Julia. *Journal of Open Research Software*, 5(1):15–??, May 25, 2017. CODEN ???? ISSN 2049-9647. URL `https://openresearchsoftware.metajnl.com/articles/10.5334/jors.151/`.

Rohit:2016:JC

[Roh16] Jalem Raj Rohit. *Julia Cookbook*. Packt Publishing, Birmingham, UK, 2016. ISBN 1-78588-201-5, 1-78588-363-1 (e-book). v + 157 pp. LCCN QA76.73.J8; T55.4-60.8. URL `http://sbiproxy.uqac.ca/login?url=https://international.scholarvox.com/book/88843406`.

Roughan:2019:PSS

[Rou19] Matthew Roughan. Practically surreal: Surreal arithmetic in Julia. *SoftwareX*, 9(??): 293–298, January/June 2019. CODEN ???? ISSN 2352-7110. URL `https://www.sciencedirect.com/science/article/pii/S2352711018302152`.

Regier:2018:CVU

[RPF+18] J. Regier, K. Pamnany, K. Fischer, A. Noack, M. Lam, J. Revels, S. Howard, R. Giordano, D. Schlegel, J. McAuliffe, R. Thomas, and Prabhat. Cataloging the visible universe through Bayesian inference at petascale. In *2018 IEEE International Parallel and Distributed*

Processing Symposium (IPDPS), pages 44–53. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Rong:2016:SCD

[RPX+16] H. Rong, J. Park, L. Xiang, T. A. Anderson, and M. Smelyanskiy. Sparso: Context-driven optimizations of sparse linear algebra. In *2016 International Conference on Parallel Architecture and Compilation Techniques (PACT)*, pages 247–259. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Ruthotto:2017:JFJ

[RTH17] Lars Ruthotto, Eran Treister, and Eldad Haber. jInv — a flexible Julia package for PDE parameter estimation. *SIAM Journal on Scientific Computing*, 39 (5):S702–S722, ???? 2017. CODEN SJOCE3. ISSN 1064-8275 (print), 1095-7197 (electronic).

Reinhardt:2019:DAB

[RUHB19] O. Reinhardt, A. M. Uhrmacher, M. Hinsch, and J. Bijak. Developing agent-based migration models in pairs. In *2019 Winter Simulation Conference (WSC)*, pages 2713–2724. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Sandoval:2022:IJI

[SAD22] Steven Sandoval, Hasan Alshammari, and Mamta Dalal. `ISA.jl`: Instantaneous spectral analysis in Julia. *SoftwareX*, 20(??):??, December 2022. CODEN ???? ISSN 2352-7110. URL `http://www.sciencedirect.com/science/article/pii/S2352711022001571`.

Salceanu:2018:JPP

[Sal18] Adrian Salceanu. *Julia programming projects: learn Julia 1.x by building apps for data analysis, visualization, machine learning, and the Web*. Packt Publishing, Birmingham, UK, 2018. ISBN 1-78829-725-3. ix + 482 pp. LCCN QA76.73.J85. URL `http://proquest.safaribooksonline.com/?fpi=9781788292740`.

Samayoa:2021:WDS

[SB21] Jorge Samayoa and Preng Biba. Workshop: Data science with Julia. In IEEE, editor, *2021 IEEE World Conference on Engineering Education (EDUNINE)*, pages 1–2. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Serrano:2017:MIP

[SBC+17] E. Serrano, J. G. Blas, J. Carretero, M. Abella, and M. Desco. Medical imaging processing on a big data platform using Python: Experiences with heterogeneous and homogeneous architectures. In *2017 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID)*, pages 830–837. IEEE Computer Society Press,

1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Shah:2013:NAA

[SEK+13] Viral B. Shah, Alan Edelman, Stefan Karpinski, Jeff Bezanson, and Jeremy Kepner. Novel algebras for advanced analytics in Julia. In IEEE, editor, *2013 IEEE High Performance Extreme Computing Conference (HPEC)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2013.

Sells:2020:JPL

[Sel20] Ray Sells. Julia programming language benchmark using a flight simulation. In IEEE, editor, *2020 IEEE Aerospace Conference*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Sengupta:2016:JHP

[Sen16] Avik Sengupta. *Julia high performance: design and develop high performing programs with Julia*. Community experience distilled. Packt Publishing, Birmingham, UK, 2016. ISBN 1-78588-091-8, 1-78588-782-3 (e-book). 115 pp. LCCN QA76.76.D47. URL `http://proquest.tech.safaribooksonline.de/9781785880919`.

Sengupta:2019:JHP

[Sen19] Avik Sengupta. *Julia high performance optimizations, distributed computing, multithreading, and GPU programming with Julia 1.0 and beyond*. Packt Publishing, Birmingham, UK, second edition, 2019. ISBN 1-78829-230-8, 1-78829-811-X. 218 pp. LCCN ???? URL `http://portal.igpublish.com/iglibrary/search/PACKT0005341.html`.

Sherrington:2015:MJD

[She15] Malcolm Sherrington. *Mastering Julia: develop your analytical and programming skills further in Julia to solve complex data processing problems*. Packt Publishing, Birmingham, UK, 2015. ISBN 1-78355-331-6 (paperback), 1-78355-332-4 (e-book). xiv + 385 pp. LCCN QA76.7 .S547 2015; QA76.73.J8 S54 2015.

Srivastava:2018:PEE

[SKG+18] P. Srivastava, M. Kang, S. K. Gonugondla, S. Lim, J. Choi, V. Adve, N. S. Kim, and N. Shanbhag. PROMISE: An end-to-end design of a programmable mixed-signal accelerator for machine-learning algorithms. In *2018 ACM/IEEE 45th Annual International Symposium on Computer Architecture (ISCA)*, pages 43–56. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2018.

Smith:2020:DPJ

[Smi20a] Einar Smith. Distributed processing in Julia. In *Introduction to the Tools of Scientific Computing*, page ?? Springer-Verlag, Berlin, Germany /

Heidelberg, Germany / London, UK / etc., 2020. URL http://link.springer.com/chapter/10.1007/978-3-030-60808-8_13.

Smith:2020:J

[Smi20b] Einar Smith. Julia. In *Introduction to the Tools of Scientific Computing*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2020. URL http://link.springer.com/chapter/10.1007/978-3-030-60808-8_8.

Sinaie:2017:PMP

[SNNB17] Sina Sinaie, Viet Ha Nguyen, Chi Thanh Nguyen, and Stéphane Bordas. Programming the material point method in Julia. *Advances in Engineering Software*, 105(??):17–29, March 2017. CODEN AESODT. ISSN 0965-9978 (print), 0141-1195 (electronic). URL https://www.sciencedirect.com/science/article/pii/S0965997816302769.

Spoto:2016:JSA

[Spo16] Fausto Spoto. The Julia static analyzer for Java. In *Static Analysis*, pages 39–57. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2016. URL http://link.springer.com/chapter/10.1007/978-3-662-53413-7_3.

Sliwak:2019:JMP

[SRA+19] Julie Sliwak, Manuel Ruiz, Miguel F. Anjos, Lucas Létocart, and Emiliano Traversi. A Julia module for polynomial optimization with complex variables applied to optimal power flow. In IEEE, editor, *2019 IEEE Milan PowerTech*, pages 1–6. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Stanitzki:2021:PJH

[SS21] Marcel Stanitzki and Jan Strube. Performance of Julia for high energy physics analyses. *Computing and Software for Big Science*, 5(1):??, December 2021. CODEN ???? ISSN 2510-2036 (print), 2510-2044 (electronic). URL https://link.springer.com/article/10.1007/s41781-021-00053-3.

Suslov:2020:SHM

[SSR+20] Sergey Suslov, Michael Schiek, Markus Robens, Christian Grewing, and Stefan van Waasen. Simulating heterogeneous models on multi-core platforms using Julia's computing language parallel potential. In IEEE, editor, *2020 IEEE/ACM 24th International Symposium on Distributed Simulation and Real Time Applications (DS-RT)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Steinebach:2023:CRW

[Ste23] Gerd Steinebach. Construction of Rosenbrock–Wanner method Rodas5P and numerical benchmarks within the Julia Differ-

ential Equations package. *BIT Numerical Mathematics*, 63(2): ??, June 2023. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `https://link.springer.com/article/10.1007/s10543-023-00967-x`.

Thomas:2019:BDP

[Tho19] Ebby Thomas. Big data in power systems: an introduction to Julia linear models using Tensor Flow. In IEEE, editor, *2019 IEEE Innovative Smart Grid Technologies — Asia (ISGT Asia)*, pages 731–735. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2019.

Thankachan:2017:IPO

[THSF17] R. V. Thankachan, E. R. Hein, B. P. Swenson, and J. P. Fairbanks. Integrating productivity-oriented programming languages with high-performance data structures. In *2017 IEEE High Performance Extreme Computing Conference (HPEC)*, pages 1–8. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2017.

Udell:2014:COJ

[UMZ+14] Madeleine Udell, Karanveer Mohan, David Zeng, Jenny Hong, Steven Diamond, and Stephen Boyd. Convex optimization in Julia. In IEEE, editor, *2014 First Workshop for High Performance Technical Computing in Dynamic Languages*, pages 18–28. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2014.

Verdugo:2022:SDG

[VB22] Francesc Verdugo and Santiago Badia. The software design of `Gridap`: a Finite Element package based on the Julia JIT compiler. *Computer Physics Communications*, 276 (??):Article 108341, July 2022. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465522000595`.

Verschelde:2022:EAS

[Ver22] Jan Verschelde. Exporting Ada software to Python and Julia. *ACM SIGADA Ada Letters*, 42 (1):76–78, June 2022. CODEN AALEE5. ISSN 1094-3641 (print), 1557-9476 (electronic). URL `https://dl.acm.org/doi/10.1145/3577949.3577961`.

Voulgaris:2016:JDS

[Vou16] Zacharias Voulgaris. *Julia for data science*. Technics Publications LLC, Basking Ridge, NJ, USA, 2016. ISBN 1-63462-130-1 (print), 1-63462-131-X (Kindle), 1-63462-132-8 (ePub). x + 350 pp. LCCN QA76.73.J8 V68 2016.

Voulgaris:2018:J

[Vou18] Zacharias Voulgaris. Julia. In *Encyclopedia of Big Data Technologies*, page ??

Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2018. URL `http://link.springer.com/referenceworkentry/10.1007/978-3-319-63962-8_268-2`.

Voulgaris:2019:J

[Vou19] Zacharias Voulgaris. Julia. In *Encyclopedia of Big Data Technologies*, page ?? Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2019. URL `http://link.springer.com/referenceworkentry/10.1007/978-3-319-77525-8_268`.

Vidhyaa:2016:HED

[VRR+16] V. G. Vidhyaa, S. A. Rajalakshmi, R. Raghavan, G. S. V. Venu Gopal, and R. Gandhiraj. Huffman encoding and decoding algorithm using IJulia. In *2016 International Conference on Communication and Signal Processing (ICCSP)*, pages 0587–0591. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2016.

Varga:2023:PPO

[VTCB23] Matija Varga, Nikola Turk, Dominik Cika , and Neven Buli . Pulse pattern optimization for medium voltage 3-level NPC converter using open source optimization tools in Julia. In IEEE, editor, *2023 4th International Conference on Smart Grid Metrology (SMAGRIMET)*, pages 1–4. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Wang:2015:IDF

[WLL+15] Yi Wang, Meilin Liu, Huiping Li, Shu Liang, and Qunsheng Cao. Implementation of DG-fem with dynamic Julia language for accurate EM simulation. In IEEE, editor, *2015 IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting*, pages 1850–1851. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2015.

Xiong:2020:PMM

[XYN20] Hao Xiong, Zhen-Yu Yin, and François Nicot. Programming a micro-mechanical model of granular materials in Julia. *Advances in Engineering Software*, 145:102816, 2020. CODEN AESODT. ISSN 0965-9978 (print), 0141-1195 (electronic). URL `https://www.sciencedirect.com/science/article/pii/S0965997820301071`.

Yan:2021:JBH

[YWZ+21] Xiaowei Yan, Qiguo Wang, Zhun Zhong, Tianhong Ren, and Keyou Wang. Julia-based high-performance electromagnetic transient simulation method and platform for large power grid. In IEEE, editor, *2021 6th Asia Conference on Power and Electrical Engineering*

(ACPEE), pages 252–257. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2021.

Zea:2022:JSS

[Zea22] Diego Javier Zea. *Interactive Visualization and Plotting with Julia: Create impressive data visualizations through Julia packages such as Plots, Makie, Gadfly, and more*. Packt Publishing, Birmingham, UK, 2022. ISBN 1-80181-051-6 (paperback), 1-80181-921-1 (e-book). xix + 370 pp.

Zhang:2016:MDE

[ZH16] Weijian Zhang and Nicholas J. Higham. Matrix Depot: an extensible test matrix collection for Julia. *PeerJ Computer Science*, 2:e58:1–e58:25, April 2016. ISSN 2376-5992.

Zhu:2023:SEI

[ZH23] Hao Zhu and Baojian Hua. SAFEJ: an efficient infrastructure for securing Julia programs. In IEEE, editor, *2023 4th International Conference on Big Data & Artificial Intelligence & Software Engineering (ICBASE)*, pages 221–224. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2023.

Ziyatdinova:2020:EES

[ZOV20] J. Ziyatdinova, O. Oleynikova, and E. Valeeva. Engaging engineering students in cultural diversity and unity studies. In *2020 IEEE Global Engineering Education Conference (EDUCON)*, pages 1164–1167. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 2020.

Zhang:2019:SSE

[ZV19] Zhiping Zhang and Jeffrey D. Varner. SEML: a simplified English modeling language for constructing biological models in Julia. *IFAC-PapersOnLine*, 52(26):121–128, 2019. ISSN 2405-8963. URL `https://www.sciencedirect.com/science/article/pii/S2405896319321299`. 8th Conference on Foundations of Systems Biology in Engineering FOSBE 2019.