## Saddle Points, Morse Theory and the Fractal Geometry of Melt Ponds

Ryleigh Moore, Jacob Jones, Dane Gollero, Court Strong, Ken Golden 2021



As ponds coalesce at saddle points, fractal dimension proxy isoperimetric quotient  $P^2/4\pi A$  jumps, driving the transition.

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Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAiC)

MOSAiC School aboard the icebreaker RV Akademik Federov

20 grad students from around the world (3 from U.S., 1 mathematician)

