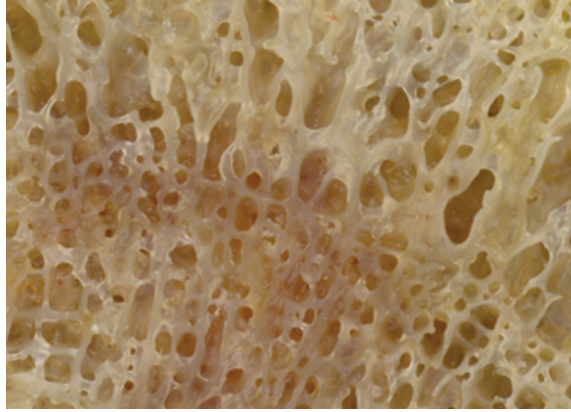


## SEA ICE

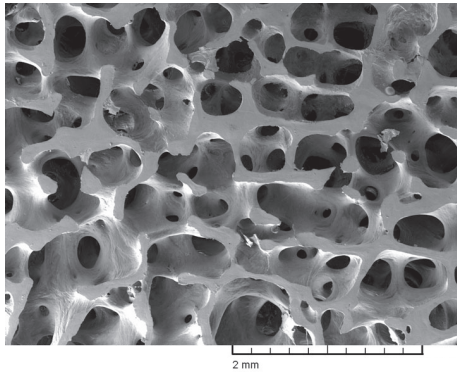


## HUMAN BONE

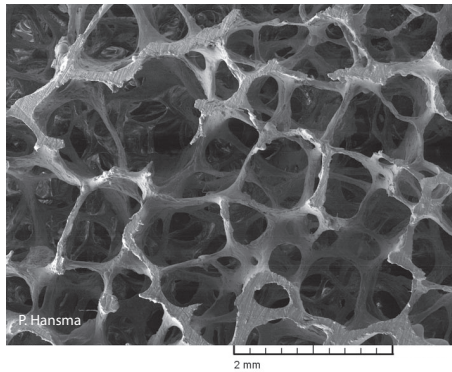


*spectral characterization  
of porous microstructures  
in human bone*

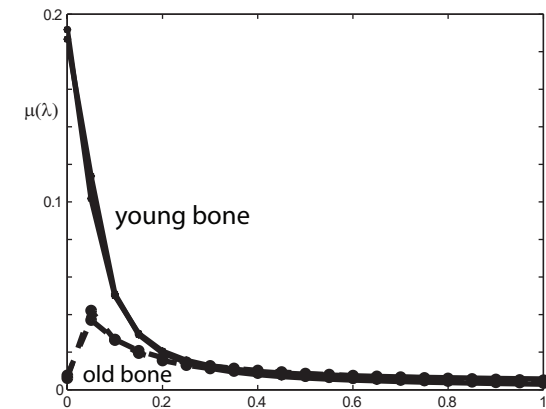
young healthy trabecular bone



old osteoporotic trabecular bone



reconstruct spectral measures  
from complex permittivity data



use regularized inversion scheme

*apply spectral measure analysis of brine connectivity and  
spectral inversion to electromagnetic monitoring of osteoporosis*

Golden, Murphy, Cherkaev, J. Biomechanics 2011

*the math doesn't care if it's sea ice or bone!*