



A Refined Life at High Resolution: Subgrid Modelling in the Eddy-Rich Regime

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Decades of work has gone into subgrid schemes and parameterizations for representing ocean mesoscale eddies in models too coarse to resolve them. Finally, computers are fast enough that we can resolve eddies in fully coupled climate simulations, and now all of those subgrid models are suspect or inappropriate. What to do?

This talk will address some of the guiding principles behind the old technology of eddy parameterizations for coarse models and present some new principles for subgrid models appropriate for the eddy-permitting and eddy-rich resolutions to come. A few of these principles have support in recent sets of matched mid- and high-resolution models, which will also be presented.