

Mathematical and numerical modeling for some geophysical fluid dynamics.

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Abstract: In this talk, I will present my recent contributions (with few technical details) on the following topics: mathematical modeling for large scale oceanography, hybrid (stochastic-deterministic) modeling for wind at small scales, coupling techniques for coastal/regional ocean models and reduced modeling for coastal ecosystems. After this wide spectrum presentation, I will provide details on the quasi-hydrostatic modeling in large scale oceanography (current work with Carine Lucas and Jim McWilliams).