

Topical Collection

Geophysical Fluid Dynamics

Message from the Collection Editor

Geophysical Fluid Dynamics (GFD) is a relatively young, but rapidly growing, branch of fluid mechanics that deals with a great variety of complex multiscale flow patterns and distributions of material properties arising in planetary atmospheres and oceans. These flow patterns are typically controlled by planetary rotation, various boundary conditions, and ubiquitous fluid density gradients. They interact with each other and combine on large scales to establish the climate. GFD employs mathematical analysis and computational modeling to deal with fundamental aspects, analyses and, ultimately, interpretations of the observed phenomena. To a large degree, the observed complexity of geophysical motions is due to the nonlinearity of the fluid dynamics, which connects GFD research with other branches of fluid mechanics. The Special Issue, “Geophysical Fluid Dynamics”, of the journal welcomes your new research contributions to the field.

Collection Editor

Prof. Dr. Pavel S. Berloff

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Editor-in-Chief

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