Numerical Simulations of Turbulent Rayleigh-Benard Convection
JANET SCHEEL, Occidental College — The results from numerical simulations of three-dimensional, fully turbulent Rayleigh-Benard convection will be presented. These results are compared to experiments and theoretical stochastic models, particularly the scaling of heat transport and thermal/viscous boundary layers with Rayleigh number. The orientation and strength of the large-scale circulation has also been measured. The orientation of this large-scale circulation exhibits diffusive meandering in addition to chaotic, abrupt switches.

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