1015-76-138   **Xiaoming Wang*** (`wxm@math.fsu.edu`), 208 LOV, Department of Mathematics, Florida State University, Tallahassee, FL 32312, and **Charlie Doering**. *Convection at large Prandtl number.* Preliminary report.

We show that most of the interesting statistical properties of the Rayleigh-Benard convection at large Prandtl number can be captured by the statistical properties of the infinite Prandtl number model for convection. In prticular, the time averaged Nusselt number of the two systems are related through an asymptotic relation. This relation gives us a new bound on the Nusselt number at large but finite Prandtl number which is consistent with the known (optimal) bound on the Nusselt number for the infinite Prandtl number model. (Received February 01, 2006)