

Abstract Submitted
for the DFD08 Meeting of
The American Physical Society

Non-resonant Forcing in Rayleigh-Bénard Convection STEPHAN WEISS, GABRIEL SEIDEN, EBERHARD BODENSCHATZ, MPI for Dynamics and Self-Organization, WERNER PESCH, Universitaet Ayreuth — We report experiments on spatially forced Rayleigh-Bénard convection in a large aspect ratio cell. The stability region of forced straight rolls in the parameter space spanned by the reduced Rayleigh number and the forcing wavenumber is determined and compared to the theoretical prediction. Intriguing patterns found away from the stability region such as localized coherent states and “brick-wall” patterns are described in detail.

Stephan Weiss
MPI for Dynamics and Self-Organization

Date submitted: 06 Aug 2008

Electronic form version 1.4