Contribution Title:

Authors: Presenting author: Affilation: E-mail: Invited speaker: YRS seminar: DISSIPATIVE PERTURBATIONS OF THE KDV EQUATION S. B. Kuksin Kuksin S. B. Ecole Polytechnique, Palaiseau kuksin@gmail.com Topical session NO

I will present an averaging theory for the KdV equation on a circle, perturbed by a small viscosity and small random force. The averaged dynamics is described by a quasilinear stochastic heat equation with a non-local nonlinearity. The theory applies both to solutions of Cauchy problem and to stationary in time solutions.