Daniel Remenik (U Chile)

## The KPZ fixed point

The KPZ universality class is a broad collection of models, including directed random polymers, particle systems and random growth models, characterized by an unusual fluctuation behavior which is model independent but depends on the initial data, and is in some cases related to random matrix theory. Much of the work in the field has stemmed from the belief that there should be a universal, scaling invariant process, the KPZ fixed point, to which all models in the class converge. I will introduce this process, which was constructed in joint work with K. Matetski and J. Quastel as a limit of one special model in class, TASEP, and discuss recent work showing convergence to the KPZ fixed point for other exactly solvable models. I will also explain how both TASEP and the KPZ fixed point turn out to be completely integrable in a certain sense, and discuss some surprising connections to dispersive PDEs.