SLE and some of its Ramifications Roland Friedrich (MPI Bonn)

In this talk we shall give an overview of various aspects of Stochastic Loewner Evolutions (SLE). SLE developed spectacularly in the last couple of years, starting with an ingenious idea of how to describe possible scaling limits of various discrete 2D models. So, in particular we shall talk about the underlying and unifying framework that permitted to generalise it to non trivial topologies as e.g. arbitrary domains or surfaces, or to singular geometries like polygons. Further we shall also briefly mention its connections with representation theory of the Virasoro algebra and Conformal Field Theory. The talk is of interest to a broader mathematical or physical audience.