

Controlled Kufarev-Loewner equations and the Sato-Segal-Wilson Grassmannian

Roland Friedrich

University of Saarbrücken, Faculty of Mathematics, D-66123
Saarbruecken, Germany.

In this talk, which is based on joint work with Takafumi Amaba, we shall be concerned with the lifted Kufarev-Loewner equation to the universal Grassmannian and its relation to the tau function. In order to achieve this, a precise technical understanding of the variation of the involved Faber polynomials and Grunsky coefficients is necessary. An important role is played by the action of the Witt algebra. In order to put the talk(s) into perspective some background information will be given about its origin which is algebro-geometric conformal field theory and integrable systems.