

**Victoria Knopova** (TU Dresden)

**Analytic construction of a Markov process**

**Abstract**

In the talk we discuss the procedure of construction of a Feller semigroup given a pseudo-differential operator of certain type defined on test functions. Making an “educated guess” about the structure of the fundamental solution to a Cauchy problem, we prove that this solution gives rise to a Feller semigroup, whose generator is the closure of the initial operator in the space of continuous functions vanishing at infinity.

The talk is based on the on-going joint work with A. Kulik and R. Schilling.