



## **Minisymposium 3 - Stochastic Processes with Jumps: Theory and applications**

### **On the Martingale Problem for a class of Pseudo-Differential Operators with Hölder Continuous Coefficients**

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We discuss the martingale problem for Lévy-type operators for which the kernel is merely Hölder continuous in the space variable. It is well-known that the well-posedness of the Martingale problem reduces to the unique solvability of the inhomogeneous heat equation associated with the generator. The solvability of the latter equations is obtained by showing that a certain class of parameter-elliptic pseudodifferential operators with Hölder-continuous coefficients generate analytic semi-groups in  $C_0^\alpha(\mathbb{R}^n)$ . The necessary resolvents estimates are proved by using a careful parametrix construction and results on composition of pseudodifferential operators with Hölder-continuous coefficients. The talk is based on a joint project with Moritz Kassmann, Bonn.