Operads and Stochastic Calculus

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In this talk we shall discuss the operadic nature of Itô and Stratonovich calculus. More precisely, we shall be concerned with the space of continuous semimartingales and we will relate it to two fundamental operads which have their roots in algebraic topology. Further, we will explain how the two are related from a cohomological perspective. Finally, we shall present an algebraic-geometric description of the Girsanov transformation.