

1049-60-14

Djalil Chafai* (djalil@chafai.net), , France, and **Florent Malrieu**. *On fine properties of mixtures with respect to concentration of measure and Sobolev type inequalities.*

Mixtures of probability distributions are ubiquitous in Stochastic Analysis, Modelling, Simulation, and Statistics. A mixture can be far more subtle than its mixed components. For instance, mixing Gaussian laws may produce a potential with multiple deep wells. Also, the fine control of concentration of measure and functional inequalities for mixtures is not an easy task. We present in this talk some recent results, examples, and open questions. (Received January 11, 2009)