On modified log-Sobolev inequalities

Abstract:

In order to prove concentration estimates for (products of) measures with heavier tails than the standard Gaussian measure one can use several variants of the classical log-Sobolev inequality, e.g., Beckner-type inequalities of Latala and Oleszkiewicz or modified log-Sobolev inequalities of Gentil, Guillin, and Miclo. The main result I plan to present asserts that a probability measure on \( \mathbb{R}^d \) which satisfies the former inequality satisfies also the latter. Based on joint work with Franck Barthe.