

Stability results of the Log-Sobolev Inequality

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Abstract. We study the stability of the Logarithmic Sobolev inequality with respect to Gauss measure. More precisely we obtain estimates of the difference between left and right hand side of the inequality in terms of a distance from the set of functions that give equality in the Logarithmic Sobolev inequality. A first result employs a distance introduced by Bucur-Fragalá, a second one is based on Fourier analysis and gives an estimate in terms of an L^1 -distance. (This is joint work with F. Feo F., E. Indrei and C. Roberto.)