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Logarithmic Sobolev, Poincaré, and Beckner Inequalities on Hyperbolic Spaces

This talk presents recent progress in the study of logarithmic Sobolev, Poincaré, and Beckner inequalities on hyperbolic spaces. We focus on determining the best constants and exploring their close connection to Gaussian measures. We also discuss new versions of Beckner inequalities that come from studying heat flow on hyperbolic spaces. This work is a collaboration with Anh Do, Guozhen Lu, and Debdip Ganguly.