

# Recent progress on calculus on metric measure spaces and the theory of Ricci lower bounds

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In the talk I will review some recent progress on the theory, initiated by Lott-Villani and Sturm, of metric measure spaces with Ricci lower bounds from below. I will illustrate the connection with the Bakry-Émery approach, based on the theory of Dirichlet forms and  $\Gamma$ -calculus, as well as the new calculus tools in metric measure spaces needed to establish this connection.