Integral Varadhan formula for nonlinear heat flow

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joint work with Kohei Suzuki[2]

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Toward the further development of nonlinear geometric analysis, we establish the integral Varadhan short-time formula for nonlinear heat flow on measured Finsler manifolds: the probability that a particle starting from a set A is found in another set B describes the distance from A to B. We do not assume the reversibility of the metric, so the distance function can be asymmetric. One side of the estimates (the upper bound of the probability) holds also in the nonsmooth setting of metric measure spaces. This is a joint work with Kohei Suzuki (Durham).