



Seminar/Talk

Leaves decompositions in Euclidean spaces

Krzysztof Ciosmak

University of Oxford

Host: Jan Maas

For a given 1 -Lipschitz map $u: \mathbb{R}^n \rightarrow \mathbb{R}^m$ we define a partition, up to a set of Lebesgue measure zero, of \mathbb{R}^n into maximal closed convex sets such that restriction of u is an isometry on this sets. Suppose we are given a probability measure μ such that weighted Riemannian manifold (\mathbb{R}^n, μ, d) satisfied the curvature-dimension condition $CD(\kappa, N)$. We consider a disintegration $(\mu_{\mathcal{S}})$ of μ with respect to the partition. We prove that for almost every set \mathcal{S} of the partition of dimension m the manifold $(\int_{\mathcal{S}} \mu_{\mathcal{S}}, d)$ satisfies the $CD(\kappa, N)$ condition. This provides a partial affirmative answer to a conjecture of Klartag. We provide a counterexample to another conjecture of Klartag that, given a vector measure on \mathbb{R}^n with total mass zero, the conditional measures, with respect to partition obtained from certain 1 -Lipschitz map, also have total mass zero.

Thursday, February 6, 2020 04:00pm - 06:00pm

Heinzel Seminar Room / Office Bldg West (I21.EG.101)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

Please find a schedule of the ISTA Shuttle on our webpage:

<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.