

OIST Analysis on Metric Spaces Seminar

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Quasiconformal and Sobolev mappings in metric measure spaces

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Starting from Gehring, the equivalence between the metric, geometric, and analytic definitions of quasiconformality has been investigated by various authors. There are many results stating that if a mapping is metrically quasiconformal, perhaps only in a relaxed sense, then it is analytically quasiconformal, or at least a Sobolev mapping. In recent joint work with Xiaodan Zhou, we have shown an improved version of such a result, which seems to detect more Sobolev mappings than previous results in the literature. I will discuss these results as well as the general strategy of the proofs.