

Sobolev embeddings of fractional spaces – continuity and compactness

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During the talk I will present results of a joint work with Przemysław Górka. We consider a fractional Slobodeckij space defined on a metric-measure space. Under some additional assumptions, we obtained that boundedness of the embedding operator is equivalent to lower regularity of the measure. At the end of the talk, we will discuss compactness of this operator and relation to L^p compactness of the Hajłasz-Sobolev spaces.

P.Górka, A. Słabuszewski, Embedding of fractional Sobolev spaces is equivalent to regularity of the measure, accepted in 2021, withdrawn in 2022 and sent to other journal.

P.Górka, A. Słabuszewski, Embeddings of the fractional Sobolev spaces on metric-measure spaces, *Nonlinear Analysis*, 2022.