

An extension of Newton-Sobolev spaces for curves not measured by arc length

Miguel Andrés Marcos *

Instituto de Matemática Aplicada del Litoral (CONICET-UNL)
Departamento de Matemática (FIQ-UNL)

Abstract

Newton-Sobolev spaces, as presentend by N. Shanmugalingam, describe a way to extend Sobolev spaces to the metric setting, for metric spaces with 'sufficient' paths of finite length. We generalize some of this results to spaces where the 'length' of a path is measured differently.