# Morrey spaces and fractional integral operators

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## Abstract

The present paper is devoted to the boundedness of fractional integral operators in Morrey spaces defined on quasimetric measure spaces. In particular, Sobolev, trace and weighted inequalities with power weights for potential operators are established. In the case when measure satisfies the doubling condition the derived conditions are simultaneously necessary and sufficient for appropriate inequalities.
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## 1. Introduction

The main purpose of this paper is to establish the boundedness of fractional integral operators in (weighted) Morrey spaces defined on quasimetric measure spaces. We derive Sobolev, trace and two-weight inequalities for fractional integrals. In particular, we

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