FRACTIONAL SPACES GENERATED BY THE POSITIVE DIFFERENTIAL OPERATOR IN THE HALF-SPACE

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Abstract

In the study, we consider the positivity of multi-dimensional differential operator in the half-space. We investigate the structure of fractional spaces generated by differetial operators in the half-space. We establish the equivalence of the norms of these fractional spaces and Hölder spaces.

We also discuss its applications to theory of partial differential equations.

Keywords: Positive operator, Fractional spaces, Green's function, Hölder spaces

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