A DISCRETE NORM ON A LIPSCHITZ SURFACE AND THE SOBOLEV STRAIGHTENING OF A BOUNDARY

A. I. Parfenov

Let a piece of the boundary of a Lipschitz domain be parameterized conventionally and let the traces of functions in the Sobolev space W_p^2 be written out through this parameter. In this space, we propose a discrete (diadic) norm generalizing A. Kamont's norm in the plane case. We study the conditions when the space of traces coincides with the corresponding space for the plane boundary.

Key words and phrases: Lipschitz domain, Lipschitz function, discrete norm, diadic number, straightening, trace, Besov space, weighted space.

Parfenov Anton Igorevich
    Sobolev Institute of Mathematics,
    Novosibirsk, 630090 Russia.
    E-mail: pai79@sibmail.ru