

Lusin property and approximate differentiability

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Abstract

A summary of results of H. Federer, W. Stepanoff and H. Whitney shows the equivalence of Lusin property, approximate differentiability, approximate Lipschitz continuity and the existence of approximate partial derivatives. W. S. Tai and F. C. Liu generalized the results to higher integral order. We will give a further generalization to fractional order in this talk.