

Formulae of Vector Analysis in Infinite-Dimensional Spaces

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In this article the classical formulas of vector analysis (Gauss – Ostrogradskii formula, the 1st Green's formula) are obtained for surfaces that are “smooth” in a generalized sense. For this aim some Sobolev classes of functions and the corresponding capacities are applied. These results are new in both infinite-dimensional and finitedimensional spaces.

Keywords: *infinite-dimensional space, capacity, surface measure.*

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