

This paper is dedicated to the memory of 95-th birthday and 10-th death anniversaries of the mathematics and physics luminary of the former century academician **Nikolay Nikolayevich Bogoliubov**

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**THE MULTIDIMENSIONAL
DELSARTE TRANSMUTATION OPERATORS,
THEIR DIFFERENTIAL-GEOMETRIC STRUCTURE
AND APPLICATIONS. PART 1**

Abstract. A differential-geometric structure of Delsarte transmutation operators in multidimension is described, application to the inverse spectral transform problem is discussed.

Keywords: Delsarte transmutation operators, Darboux transformations, inverse spectral transform problem.

Mathematics Subject Classification: Primary 34A30, 34B05, Secondary 34B15.