Submanifolds and Gauss Map Related to Some Differential Operators

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ABSTRACT

Gauss map is one of interesting smooth maps on a submanifolds of Euclidean and pseudo-Euclidean space, which describes how the immersion behaves in the ambient space. In this talk, we introduce how the Gauss map plays a role to classify or characterize ruled submanifolds in Euclidean space or Minkowski space related to the Laplace operator and the Cheng-Yau operator.