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Submanifolds related to Gauss map and some differential operators. Preliminary report.

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. In particular, we characterize ruled submanifolds in Minkowski space with the Gauss map and such operators. (Received January 02, 2015)