On the Gauss Map of Ruled Surfaces in the Euclidean 3-Space

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ABSTRACT

We consider surfaces in the three-dimensional Euclidean space E^3 without parabolic points which are of finite II-type, that is, they are of finite type, in the sense of B.-Y. Chen, with respect to the second fundamental form. We present an important family of surfaces, namely, ruled surfaces in E^3. We show that the Gauss map of ruled surfaces is of infinite type.