Biholomorphically projective mappings and invariant geometric structures

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Geometric mappings provide an important framework for studying relationships between different geometric structures. In this presentation, biholomorphically projective mappings will be considered as a generalization of holomorphically projective mappings [1]. Particular attention will be devoted to the role of geometric structures, with special emphasis on almost complex structure, in the study of these mappings [2].

Starting from affine connections and their deformation tensors, the basic geometric framework of biholomorphically projective mappings will be introduced. Their connections with geodesic, almost geodesic, and holomorphically projective mappings will be discussed, together with the main criteria used for their classification.

Special attention will be given to invariant geometric objects associated with these mappings and their role in describing and distinguishing different classes of transformations. Finally, some directions for further generalizations will be indicated.

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References

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