

ON HOLOMORPHICALLY PROJECTIVE MAPPINGS OF EQUIDISTANT PARABOLIC KÄHLER SPACES

HANA CHUDÁ, JOSEF MIKEŠ[†], PATRIK PEŠKA[†] and MOHSEN SHIHA^{*}

*Department of Mathematics, Thomas Bata University in Zlín, 760 05 Zlín
Czech Republic*

[†]*Department of Algebra and Geometry, Palacky University, 77146 Olomouc
Czech Republic*

^{*}*Department of Mathematics, University of Homs, Homs, Syria*

Abstract. In this paper we construct holomorphically projective mappings of equidistant parabolic Kähler spaces. We discuss fundamental equations of these mappings as well.

MSC: 53B30, 53B99

Keywords: Equidistant spaces, holomorphically projective mappings, parabolic Kähler spaces, (pseudo-)Riemannian space

1. Introduction

First we note the general dependence of holomorphically-projective mappings of parabolic Kähler manifolds in dependence on the smoothness class of the metric. We present well known facts, which were proved by M. Shiha, J. Mikeš *et al*, see [2, 3, 9, 14, 15, 19, 21–23].

The similar problems have been studied for holomorphically-projective mappings of Kähler spaces cite [4–7, 9–11, 14, 16, 18, 27].

Finally, we construct holomorphically-projective mappings of equidistant parabolic Kähler spaces. For equidistant Kähler spaces were those spaces constructed in [12, 13].