

Year: 2013

Vol.: 83

Fasc.: 1-2

Title: Grünwald shift spaces

Author(s): Josef Mikeš and Karl Strambach

An n -dimensional differentiable shift space \mathcal{S} for which in case $n = 2$ there exists an affine connection if \mathcal{S} is a Grünwald plane (cf. [?, § 4]) admits for $n \geq 3$ no affine connection. In contrast to this the set of all images of the system of curves arising by shifting the argument from a Grünwald curve \mathcal{C} under the translation group of \mathbb{R}^n is a system of geodesics with respect to a metrizable affine connection if and only if \mathcal{C} is a curve corresponding to parabolas in a suitable coordinate system.

Address:

Josef Mikeš
Department of Algebra and Geometry
Faculty of Science
Palacky University
17. listopadu 12
77146 Olomouc
Czech Republic

Address:

Karl Strambach
Department Mathematik
der Universität Erlangen-Nürnberg
Cauerstr. 11,
D-91052 Erlangen
Germany