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CIRCULAR TRACTRICES AND CIRCULAR DINI SURFACES IN SEMI-EUCLIDEAN SPACES

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We introduce semi-Euclidean analogues of circular Dini surfaces in \mathbb{E}^4 which generalize the classical Dini surfaces in \mathbb{E}^3 by inheriting their geometric features concerning the degeneration of the Bianchi-Bäcklund transformation. The construction is based on the use of semi-Euclidean analogues of circular tractrices in \mathbb{E}^3 .

MSC: 53A04, 53A07, 53A35, 58J72 *Keywords*: Bäcklund transformation, Dini surface, pseudosphere, tractrix

Contents

1	Introduction	1
2	General Method for Reconstructing Circular Tractrices	4
3	Integrability of the Generating Cauchy Problem	7
4	General Properties of Semi-Euclidean Circular Tractrices	10
5	Semi-Euclidean Circular Dini Surface	12
6	Problems	16
7	Conclusion	17
A	A Short Walk Through the Zoo of Semi-Euclidean Circular Tractrices	17
References		22

1. Introduction

In 2000 Yu. Aminov and A. Sym settled the problem whether the classical theory of Bianchi-Bäcklund transformations of two-dimensional pseudo-spherical surfaces doi: 10.7546/giq-27-2024-1-24