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ON ANALOGUES OF BÄCKLUND THEOREM IN AFFINE DIFFERENTIAL GEOMETRY OF SURFACES

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Abstract. Here we recall the well-known Chern–Terng theorem concerning affine minimal surfaces. After that we formulate some complementary (with transversal fields necessarily not parallel) affine Bäcklund theorem. Next, we describe some geometrical conditions which imply the local symmetry of both induced connections. Finally, we give some necessary and sufficient conditions under which the affine fundamental forms are proportional.

MSC: 53A15, 53B05

Keywords: Affine differential geometry, affine normal vector field, Bäcklund theorem, Blaschke structure, locally symmetric connection

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