

Werk

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Restricting ourselves to the frames satisfying (27) and (30), we get

$$(31) \quad \alpha = 1, \quad \beta = 0, \quad \gamma = 0, \quad \delta = 1,$$

i.e., the conditions (27) and (30) determine exactly one field of frames $\{v_i\}$. In other words, the conditions (27) and (30) reduce our original G -structure to an $\{e\}$ -structure. For this $\{e\}$ -structure, $a_1, a_2, b_1, \dots, b_4, c_1, \dots, c_4, e_1, \dots, e_4, f_1, \dots, f_4$ are the invariants; d_1, \dots, d_4 are given by (27) and (30). Now, it is easy to see the following

Theorem. *In \mathbb{C}^2 , be given a transitive congruence \mathcal{L} of surfaces. Considering the associated G -structure, we may reduce it to an $\{e\}$ -structure given by (4) with $a_1, \dots, f_4 = \text{const.}, (27), (30)$ and*

$$\begin{aligned}
 (32) \quad & d_3b_1 + d_4c_1 - b_3d_1 - b_4e_1 - a_2d_1 + a_1e_2 = 0, \\
 & d_3b_2 + d_4c_2 - b_3d_2 - b_4e_2 + b_1a_2 - a_1b_2 = 0, \\
 & d_4c_3 - b_4e_3 - d_3e_2 - a_1b_3 = 0, \\
 & d_3b_4 + d_4c_4 - b_3d_4 - b_4e_4 - d_4a_2 - a_1b_4 = 0, \\
 & e_3b_1 + e_4c_1 - c_3d_1 - c_4e_1 - e_1a_2 + e_2a_1 = 0, \\
 & e_3b_2 + e_4c_2 - c_3d_2 - c_4e_2 + c_1a_2 - a_1c_2 = 0, \\
 & e_3b_3 + e_4c_3 - c_3d_3 - c_4e_3 - e_3a_2 - a_1c_3 = 0, \\
 & e_3b_4 - c_3d_4 - e_4a_2 - a_1c_4 = 0, \\
 & f_3b_1 + f_4c_1 + c_2d_1 - c_4f_1 - b_2e_1 - b_3f_1 + f_2a_1 = 0, \\
 & f_3b_2 + f_4c_2 + c_1b_2 + c_2d_2 - c_4f_2 - b_1c_2 - b_2e_2 - b_3f_2 + f_2a_2 = 0, \\
 & f_4c_3 + c_1b_3 + c_2d_3 - c_4f_3 - b_1c_3 - b_2e_3 = 0, \\
 & f_3b_4 + c_1b_4 + c_2d_4 - b_1c_4 - b_2e_4 - b_3f_4 = 0, \\
 & f_3d_1 + f_4e_1 + e_1b_1 + e_2d_1 - e_4f_1 - d_1c_1 - d_2e_1 - d_3f_1 - a_1f_1 = 0, \\
 & f_3d_2 + f_4e_2 + e_1b_2 - e_4f_2 - d_1c_2 - d_3f_2 - f_1a_2 = 0, \\
 & f_4e_3 + e_1b_3 + e_2d_3 - e_4f_3 - d_1c_3 - d_2e_3 = 0, \\
 & f_3d_4 + e_1b_4 + e_2d_4 - d_1c_4 - d_2e_4 + d_3f_3 = 0.
 \end{aligned}$$

Bibliography

- [1] A. Švec: On a group of holomorphic transformations in \mathbb{C}^2 . Czech. Math. J., 24 (99), 1974, 97–106.

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