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Hyperbolic Parallelograms of the Plane \widehat{H}

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Hyperbolic parallelograms on a Hyperbolic Plane \hat{H} of the positive curvature in the Cayley–Klein model are investigated. We conducted their classification, obtained the metric correlations between the measure of angles and the expressions of lengths of the edges through a measure of included angles.

Key words: hyperbolic plane \widehat{H} of positive curvature; parallelogram; hyperbolic parallelogram.

References

Rozenfeld B. A. *Neevklidovy prostranstva* [Non-Euclidean spaces]. Moscow, Nauka, 1969, 548 p. (in Russian).
Romakina L. N. Simple partitions of a hyperbolic plane of positive curvature. *Sb. Math.*, 2012, vol. 203, iss. 9. pp. 1310–1341.

3. Romakina L. N. Oval Lines of the Hyperbolic Plane of Positive Curvature. *Izv. Sarat. Univ. N.S. Ser. Math. Mech. Inform.*, 2012, vol. 12, iss. 3, pp. 37–44 (in Russian).

4. Romakina L. N. Analogs of a formula of Lobachevsky for angle of parallelism on the hyperbolic plane of positive curvature. *Siberian Electronic Mathematical Reports*, 2013, vol. 10, pp. 393–407 (in Russian).

5. Romakina L. N. The theorem of the area of a rectangular trihedral of the hyperbolic plane of positive curvature. *Far Eastern Mathematical Journal*, 2013, vol. 13, \mathbb{N} 1, pp. 127–147 (in Russian).

6. Romakina L. N. Finite Closed 3(4)-Loops of Extended Hyperbolic Plane. *Izv. Sarat. Univ. N.S. Ser. Math. Mech. Inform.*, 2010, vol. 10, iss. 3, pp. 14–26 (in Russian).

7. Romakina L. N. Finite Closed 5-Loops of Extended Hyperbolic Plane. *Izv. Sarat. Univ. N.S. Ser. Math. Mech. Inform.*, 2011, vol. 11, iss. 1, pp. 38–49 (in Russian).