CEVA’S TRIANGLE INEQUALITIES

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Abstract. We characterize triples of cevians which form a triangle independent of the triangle where they are constructed. This problem is equivalent to solving a three-parameter family of inequalities which we call Ceva’s triangle inequalities. Our main result provides the parametrization of the solution set.


Keywords and phrases: Triangle inequality, triangle inequality for cevians, cone preserving matrices, common invariant cone.

REFERENCES