

Meeting: 1007, Santa Barbara, California, SS 2A, Special Session on History of Mathematics

1007-01-39 **Wladimir G. Boskoff** (boskoff@univ-ovidius.ro), Department of Mathematics & Computer Science, University Ovidius, Constantza, CA 92602, and **Bogdan D. Suceava*** (bsuceava@fullerton.edu), Department of Mathematics, California State University, Fullerton, P.O. Box 6850, Fullerton, CA 92834-6850. *Barbilian Distances: The History.*

The Cayley-Poincaré model of the Lobachevsky's non-Euclidean geometry yields naturally a distance that can be represented as a logarithmic oscillation. Dan Barbilian (1895 - 1961) established a theory of metric spaces endowed with this distance. Recent results connect the geometries with constant Gaussian curvature to the Barbilian spaces and emphasize how Barbilian distances yield generalized Lagrange metrics irreducible to Lagrange, Finsler or Riemann metrics. Our work presents the history of the developments of these mathematical ideas from the first half of the twentieth century until today. (Received December 28, 2004)