Papadopoulos, Athanase (ed.); Troyanov, Marc (ed.)   *** 1310.51001**
Handbook of Hilbert geometry.
IRMA Lectures in Mathematics and Theoretical Physics 22. Zürich: European Mathematical
Society (EMS) (ISBN 978-3-03719-147-7/hbk). viii, 452 p. EUR 78.00 (2014).
This book consists of contributions from different authors. However, it is not a collection of
proceedings, it rather adds up to a genuine introduction into the field of Hilbert geometry. The
first part is dedicated to the concept of Minkowski, Hilbert and Funk geometries. It eventually
leads characterizations of hyperbolic geometry among Hilbert geometries. Part 2 is on 'Groups
and dynamics in Hilbert geometry'. Part 3 deals with developments and applications, ending
with a contribution by Papadopoulos and Yamada on Funk and Hilbert geometries in spaces
of constant curvature. Finally, Part 4 is a short glimpse on the history of the field, shedding
some light on the origin of Hilbert geometry. This neatly and carefully written monograph
intends to be a comprehensive introduction into Hilbert geometry. And, in fact, it does live
up to this intention. The different points of view contributed by different authors add up to a
rounded picture of the subject.   *Johann Lang (Graz)*