



Audrey CURNOCK* (curnoca@sbu.ac.uk),
School of Computing and Mathematics, South Bank
University, London SE1 0AA, 103 Borough Road, Eng-
land; **J. D. HOWROYD** (mas01jdh@gold.ac.uk),
Department of Mathematical Sciences, Goldsmiths Col-
lege, University of London, London SE14 6NW, Eng-
land; **N-C. WONG** (wong@math.nsysu.edu.tw), De-
partment of Applied Mathematics, National Sun Yat-
sen University, Kaohsiung 80424, Taiwan, R.O.C.,
Isometries of Affine Function Spaces.

ABSTRACT. We characterize surjective linear isometries between affine function spaces and also extend the Banach–Stone theorem to this setting. Let K and S be compact convex sets. Then every surjective linear isometry T between affine function spaces $A(K)$ and $A(S)$ is a product of a composition operator with a skew isometry. In addition, every such T induces an affine homeomorphism between K and S if, and only if, either K or S is skew symmetric. Further, every such T is a weighted composition operator if, and only if, either K or S has the property that every closed parallel face is split. A sufficient condition for the latter property is the unique decomposition property, which is shared by, for example, state spaces of C^* -algebras. We also give some illustrative geometric examples. Finally, we give some illustrative geometric examples.