## 1089-08-233

Anna B. Romanowska<sup>\*</sup> (aroman@mini.pw.edu.pl), Warsaw University of Technology, Mathematics and Information Science, Koszykowa 75, 00-662 Warsaw, Poland, and Gabor Czedli. Algebraic closure of some generalized convex sets.

Algebraic convex sets over a principal ideal subdomain R of the ring of real numbers are described as certain subreducts of affine spaces over R. Among them, geometric convex sets are described as the intersections of convex subsets of real affine spaces with corresponding affine spaces over R. We will introduce a concept of an algebraic closure of such convex sets and examine some of their properties. In particular, algebraic and topological closures of geometric convex subsets of finite dimensional affine spaces over R coincide. (Received February 16, 2013)