

OLENA DROZD**Kiev, Taras Shevchenko University***Reduction algorithm for generalized boxes(25-30)*

The matrix problems theory, mainly representations of boxes, have been widely used in many questions. Nevertheless, in these applications mainly the case of algebraically closed fields have been considered. Especially, algorithms of matrix reduction have been only elaborated formally for this case, though in some papers non-closed case has also been treated (usually non- formally). In my talk I present a generalization of the Kleiner-Roiter algorithm for boxes over non algebraically closed fields. As a corollary, the first Brauer-Thrall conjecture is proved for representations of boxes over arbitrary fields.