1046-46-1491 **Hermann Koenig** and **Nicole Tomczak-Jaegermann*** (nicole.tomczak@ualberta.ca), Dept. of Meth and Stat Sciences, University of Alberta, Edmonton, Alberta T6G 2G1, Canada.

Projecting l_∞ onto classical spaces.

We describe an explicit construction of a linear projection of a symmetric conical section of the n-dimensional cube onto a $(1+\varepsilon)$ - isomorphic version of the Euclidean ball of proportional dimension, or more generally onto a $(1+\varepsilon)$ - isomorphic image of an l_p^m - ball. Allowing non-linear projections (of logarithmic polynomial nonlinearity) we may even project the full n-dimensional cube onto the same images. This is done by gluing together explicit projections onto two-dimensional spaces, interpreting and modifying a paper of Ben-Tal and Nemirowski. (Received September 15, 2008)