1030-05-316 **Sergei L Bezrukov*** (`sb@mcs.uwsuper.edu`), Department of Math and Comp. Sciemce, University of Wisconsin - Superior, Superior, WI 54880, and **Miquel Rius** and **Oriol Serra**. *On a generalization of the local-global theorem for isoperimetric orders.* Preliminary report.

A graph is isoperimetric if it admits an ordering of the vertices such that the initial segments minimize the boundary among sets of the same cardinality. Not many classes of graphs are known to be isoperimetric. We show that most cartesian products of the known classes of isoperimetric graphs are again isoperimetric. We also give an extension of the local-global principle for graphs admiting the lex-simplicial order as isoperimetric. (Received August 06, 2007)