1126-52-44   **Robert Connelly*** (`connelly@math.cornell.edu`), Department of Mathematics, Malott Hall, Ithaca, NY 14853. *The isostatic conjecture for circle packings.* Preliminary report.

If a circle packing in a compact container with non-negative curvature is locally maximally dense, then it has an infinitesimally rigid tensegrity packing subgraph, the spine. If the radii of the packing disks are chosen generically, then it has been conjectured, and verified experimentally, that the spine has the minimum number of contacts as predicted by rigidity theory. An outline of a proof of this conjecture in the plane will be given using an Andreev-type theorem and inversive distances. (Received December 16, 2016)