ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

13. Combinatorics

1991 MS Classification: 53,58,52,49
Tuzhilin, Alexei, Moscow State University, Russia

Planar Local Minimal Networks with Convex Boundaries

The complete classification of planar local minimal networks with convex boundaries is obtained. As a corollary, we give a complete description of local minimal binary trees of skeleton type spanning the vertices of regular polygons. Another corollary is the construction of infinite series of polygons close to regular ones whose vertices can not be spanned by a local minimal binary tree.

Refs. 1. A. O. Ivanov and A. A. Tuzhilin, Planar Local Minimal Binary Trees with Convex, Quasiregular, and Regular Boundarioes. Preprint, 1997, Sonderforschungsbereich 256, 490.
2. A. O. Ivanov and A. A. Tuzhilin, Minimal Networks. Steiner Problem and Its Generalizations, CRC Press, 1994.