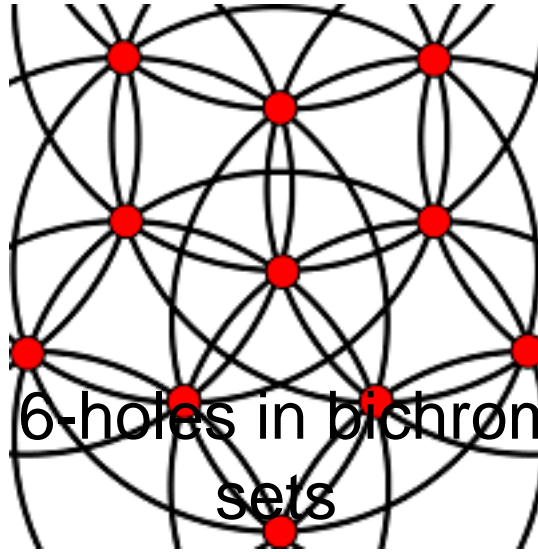


CSASC 2013



Contribution ID : 91

Balanced 6-holes in bichromatic point sets

Content :

We consider an Erdős type question on k -holes (empty k -gons) in bichromatic point sets.

For a bichromatic point set $S = R \cup B$, in general position and integer $k \geq 2$, a balanced $2k$ -hole in S is a simple polygon spanned by k points of R and k points of B .

which does not contain any points of S in its interior.

We show that if $|R| = |B| = n$, then the number of balanced 6-holes in S is at least $\frac{1}{45}n^2 - \Theta(n)$.

Primary authors : Ms. VOGTENHUBER, Birgit (Institute for Software Technology, Graz University of Technology)

Co-authors : Mr. AICHHOLZER, Oswin (Institute for Software Technology, Graz University of Technology) ; Mr. URRUTIA, Jorge (Instituto de Matemáticas, Universidad Nacional Autónoma de México)

Presenter : Ms. VOGTENHUBER, Birgit (Institute for Software Technology, Graz University of Technology)

Session classification : --not yet classified--

Track classification : Discrete and Computational Geometry

Type : Oral presentation