Lattice Coverings
Mathieu Dutour Sikiric, Institut Rudjer Boskovic

Lattice coverings are a simple case of covering problems. We will first expose methods for finding the covering density of a given lattice. If one considers a space of possible lattices, then one gets the theory of L-type. We will explain how this theory works out and how the over a given L-type the problem is a semidefinite programming problem. Finally, we will explore the covering maxima of lattices, i.e. local behavior of the covering density function.