I. Two-dimensional Meshes

2 Delaunay triangulations
3 Edge-flipping
4 Randomized incremental construction
5 Delaunay refinement

The four sections in this chapter focus on using Delaunay triangulations for two-dimensional mesh generation. Sections 2, 3, 4 study the question from the computational geometry perspective, where the goal is to construct the Delaunay triangulation for a given finite point set. The assumption is that the points are part of the *input*. Section 5 addresses the two-dimensional mesh generation problem, where the goal is to triangulate a given two-dimensional region. As a consequence, the points are no longer given but need to be generated as part of the *solution*.