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## AUTOMATIC MESH GENERATION AND ADAPTIVE METHODS

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## Abstract

The first part of this short tutorial will be made up of a couple of a priori simple problems about mesh generation with the aim to point out some basic techniques and some surprising computational things.

In a second part we will describe the main lines of a Delaunay based mesh generation method and it will be shown how to take benefit of the underlying flexibility to modify the classical steps of such methods so as to generate adapted and even anisotropic meshes. Then, based on these ingredients, adaptation will be discussed coupling error estimates and governed mesh generation methods

In a third part we will briefly discuss some key ideas about curve and surface meshing.