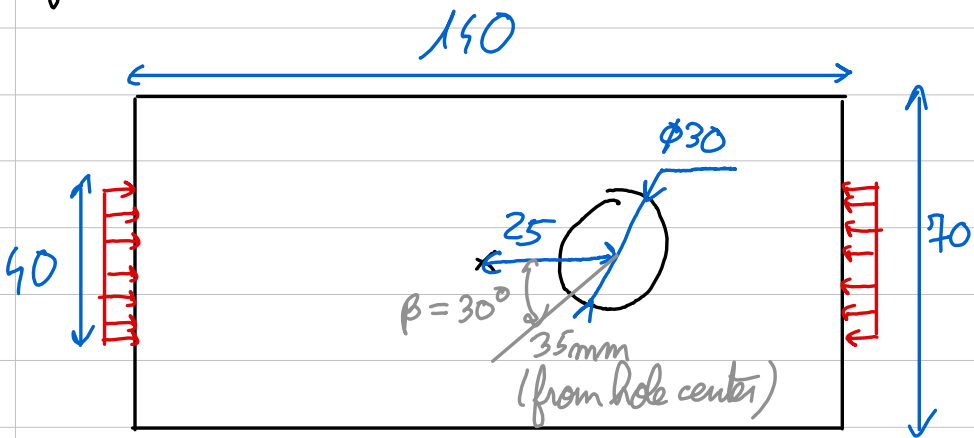


Mixed-mode PMMA by Piéthore (2018)

This small document covers the mesh creation for this example. Let us start by setting up the geometry of the specimen.

GEO



x is the center thickness = 10 mm

Figure 1: Geometry of the specimen.

MAT

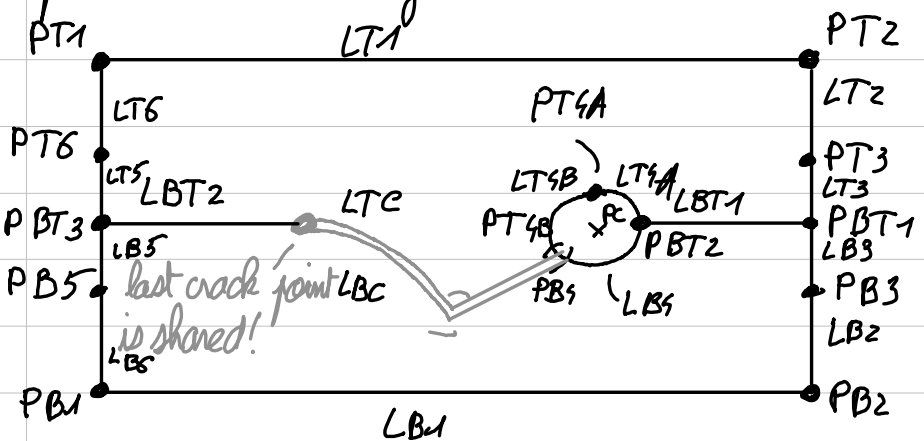
The material properties of the PMMA are: (perspex)

$$E = 5 \text{ GPa}, \quad \nu = 0.32, \quad G_c \approx 430 \text{ J.m}^{-2}.$$

assumed! ✓

MESH

To define the mesh, we need to split it into two parts (as used with gcrack):



• no duplicate point = duplicated points

☹ - points and lines in gray → in crack