SIMULATION OF PDES ON GEOMETRIES DEFINED VIA BOOLEAN OPERATIONS

ANNALISA BUFFA

ABSTRACT. We consider the scenario of a computational domain described as a combination of primitives and spline/NURBS boundary representations which are combined via boolean operations, such as intersections and unions. We aim to develop numerical methods that are robustly able to tackle the simulation of PDEs over such "unstructured" geometric representation.

INSTITUTE OF MATHEMATICS, ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE (EPFL), SWITZERLAND

Email address: `annalisa.buffa@epfl.ch`