

PARTITION OF UNITY FINITE ELEMENT METHOD IMPLEMENTATION FOR POISSON EQUATION

C. BACUTA⁺ AND J. SUN^{*}

ABSTRACT. Partition of Unity Finite Element Method (PUFEM) is a very powerful tool to deal overlapping grids. It is flexible and keeps the global continuity. In this paper, we consider PUFEM for Poisson equation for minimal overlapping grids. We present details of the implementation of Poisson equation in 2D for two overlapping domains using triangular meshes.

DEPARTMENT OF MATHEMATICAL SCIENCES, UNIVERSITY OF DELAWARE, NEWARK, DE 19716,
USA

E-mail address: `bacuta@math.udel.edu`

APPLIED MATHEMATICAL RESEARCH CENTER, DELAWARE STATE UNIVERSITY, DOVER, DE
19901, USA

E-mail address: `jsun@desu.edu`

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