

# ADAPTIVE MESHLESS CENTRES AND RBF STENCILS FOR POISSON EQUATION

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## TÓM TẮT:

We consider adaptive meshless discretisation of the Dirichlet problem for Poisson equation based on numerical differentiation stencils obtained with the help of radial basis functions. New meshless stencil selection and adaptive refinement algorithms are proposed in 2D. Numerical experiments show that the accuracy of the solution is comparable with, and often better than that achieved by the mesh-based adaptive finite element method.