Adaptive Meshless Refinement for RBF-FD Method or Elliptic Problems with Point Singularities in 2D

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Abstract: In this talk we focus on the task how to generate sets of discretization centers for the adaptive meshless generalized finite difference method based on radial basis functions. We concentrate on the elliptic problems with *point singularities* in 2D, such as the reentrant corners of the boundary, sharp peaks and oscillations in the neighborhood of an isolated point. The results confirm the robust and competitive performance of the suggested method for problems of this type.

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