

GLOBAL KRYLOV SUBSPACE METHODS FOR COMPUTING THE MESHLESS ELASTIC SPLINES

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Meshless elastic polyharmonic splines are useful for the approximation of vector fields from scattered data points without using any mesh nor grid [1, 2, 4]. They are based on a minimization of certain energy in an appropriate functional native space. A such energy is related to the strain tensor constraint and to the divergence of the vector field. The computation of such splines leads to a large linear system. In this talk, we will discuss how to transform a such linear system to a general Sylvester matrix equation [3]. So, we will use global Krylov subspace methods to compute approximations to the solution.

References

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