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Finite Element Methods For Reissner-Mindlin Plate

Reissner-Mindlin plate model is one of the most commonly used models of a moderately think to thin linearly elastic plate. However, a direct and seemingly reasonable finite element discretization usually yields very poor results which is usually referred to LOCKING phenomenon. In the past two decades, many efforts have been devoted to the design of locking free finite elements to resolve this model, most of these work focus on triangular and rectangular elements, the latter may be easily extended to parallelograms, but very few on quadrilaterals. In this talk we will give an overview for the recent development of some low order quadrilateral elements and present our new results.