

Intrinsic methods in elasticity

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In the classical approach to elasticity problems, the components of the displacement field are the primary unknowns. In an "intrinsic" approach, new unknowns with a more "intrinsic", i.e. with more "mechanical" or "geometrical" meanings, such as a strain tensor field or a rotation field for instance, are instead taken as the primary unknowns. We survey here recent progress about the mathematical and numerical analysis of such methods.