

**Mitric, Radu; Constanda, Christian**

**Boundary integral equation methods for a refined model of elastic plates.** (English)

[Zbl 1143.74035](#)

[Math. Mech. Solids 11, No. 6, 642-654 \(2006\).](#)

Summary: A theory of bending of elastic plates is considered, in which the effects of transverse shear deformation and transverse normal strain are taken into account through a specific form of the displacement field. It is shown that the system of equilibrium equations is elliptic, and that Betti and Somigliana formulae can be established which permit the solution of interior and exterior Dirichlet and Neumann problems by means of boundary integral equation methods.

**MSC:**

[74K20](#) Plates

**Keywords:**

[Betti formula](#); [Somigliana formula](#); [transverse normal strain](#); [transverse shear deformation](#)

**Full Text:** [DOI](#)