

Cicala, Placido

Elastic helicoidal body. Asymptotic formulation. (Italian. English summary) Zbl 0595.73016
Atti Accad. Sci. Torino, Cl. Sci. Fis. Mat. Nat. 116(1984), 157-167 (1982).

Summary: Categories of rod and beam problems are defined according to asymptotic behaviour. Results concerning open section, pretwisted beams subjected to axial load and torsion, furnished by nonlinear elastic *F. Algotino's* analysis [see the summary above ([Zbl 0595.73015](#))] are discussed in connection with literature in the field. Advantages of asymptotic approach are underscored.

MSC:

[74B20](#) Nonlinear elasticity

[74K10](#) Rods (beams, columns, shafts, arches, rings, etc.)

[41A60](#) Asymptotic approximations, asymptotic expansions (steepest descent, etc.)

Cited in 1 Review

Keywords:

asymptotic behaviour; open section; pretwisted beams; axial load; torsion