

[Algotino, Franco](#)

Elastic helicoidal body. Bidimensional problems. (Italian. English summary) Zbl 0595.73015
Atti Accad. Sci. Torino, Cl. Sci. Fis. Mat. Nat. 116(1984), 37-46 (1982).

Summary: The nonlinear theory of elasticity is presented and applied to the helicoidal beam. The problem of constant twist and axial elongation is solved by asymptotic expansions.

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:

[helicoidal beam](#); [constant twist](#); [axial elongation](#); [asymptotic expansions](#)