

## Lecture announcement

### Continuum Mechanics

Students will gain extended knowledge of continuum mechanics. They furthermore gain practical skills and learn different solution techniques for mechanical problems as a prerequisite for computer-oriented structural analysis.

Starting with an introduction to the advanced analytical techniques of linear elasticity theory, the course moves on to the continuum-mechanical concepts of the nonlinear elasticity and ends with the discussion of material instabilities and microstructures. Numerous examples and applications will be given.

#### Literature:

Pei Chi Chou, Nicholas J. Pagano, Elasticity, Dover, 1997

T.C. Doyle, J.L. Ericksen, Nonlinear Elasticity

Advances in Appl. Mech. IV, Academic Press, New York, 1956

C. Truesdell, W. Noll, The nonlinear field theories

Handbuch der Physik (Flügge, Hrsg.), Bd. III/3, Springer-Verlag, Berlin, 1965

J.E. Marsden, T.J.R. Hughes, Mathematical foundation of elasticity, Prentice Hall, 1983

R.W. Ogden, Nonlinear elastic deformation, Wiley & Sons, 1984

Semester	Summer Semester 2016
Modul	6-MS4
Hold by	Prof. Dr. rer. nat. K.Hackl, Prof. Dr. rer. nat. K.C. Le
Time	Tuesday 8.30-10.00 am & Thursday 14.15-15.45 pm
Room	IC 04/410
First Lecture	12.04.2016
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