

Graduate School of Production Engineering and Logistics



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On the modelling of peeling tapes

- Date : February 16, 2007
- Time : 13.00 – 15.00
- Place : Mechanical Engineering Building I, E21, Campus North

- Abstract :

Peeling of adhesive tapes is a phenomenon of failure mechanics not only relevant in view of industrial applications but also experienced in everyday life-think of opening hook-and-loop fasteners, pulling off sticking plaster or sellotape, and so forth. From the experimental and modelling viewpoint both, soft peeling (force-driven, instable) as well as hard peeling (displacement-driven, stable) are of interest.

To set the stage, fundamental modelling-concepts for peeling tapes will be discussed by means of a simple ansatz which enables to straightforwardly develop analytical solutions. Based on these investigations, a related finite-element-based formulation is adopted providing a rather general simulation-tool for the problem at hand.

