

Materialien zu Seminar-Vorträgen / betreut von S J Linz

- Synchronization of Huygens' clocks:
 - intro: Wikipedia: [Pendulum clocks](#)
 - intro: phys.org: [Researchers prove Huygens was right about pendulum synchronization](#)
 - JP Ramirez, LA Olvera, H Nijmeijer, J Alvarez
The sympathy of two pendulum clocks: beyond Huygens observations
[Scientific Reports](#) **6**, 23580 (2016)
 - AR Willms, PM Kitanov, WF Langford
Huygens' clocks revisited
[R. Soc. Open Science](#) **4**, 170777 (2017)
plus videos by Willms et al.
- Beyond Navier-Stokes equations: the case of a dilute gas
 - Popular science articles
Famous Fluid Equations Are Incomplete
[QuantaMagazine](#), July 21, 2015
New capillarity effects in ideal gases solve an old mathematical mystery
[PHYS.ORG](#), Nov 25, 2016
 - A. N. Gorban, I. V. Karlin (overview paper)
Beyond Navier–Stokes equations: capillarity of ideal gas
[Contemp. Physics](#) **58**, 70-90 (2017)
 - M. Slemrod
From Boltzmann to Euler: Hilbert's 6th problem revisited
[Computers & Mathematics with Applications](#) **65**, 1497 (2013)
corresponding pdf file of an extended talk by M. Slemrod on
[From Boltzmann to Euler: Hilbert's 6th problem revisited](#)
- Hydrodynamic supercontinuum
 - A. Chabchoub, N. Hoffmann, M. Onorato, G. Genty, J. M. Dudley, and N. Akhmediev
Hydrodynamic supercontinuum
[Phys. Rev. Lett.](#) **111**, 054104 (2013)
 - general idea of a supercontinuum in the context of laser
[wikipedia](#)
 - N. K. Vitanov, A. Chabchoub, N. Hoffmann
Deep-Water Waves: on the Nonlinear Schrödinger Equation and its Solutions
[Journal of Theoretical and Applied Mechanics](#) **43**, 43-54 (2013)
- Physics of fracture, friction, earthquakes
 - H.Kawamura et al.
Statistical physics of fracture, friction, earthquakes
[Rev. Mod. Phys.](#) **84**, 839 (2012)
 - E. Daub, J. Carlson
Friction, Fracture, and Earthquakes
[Ann. Rev. Cond. Matter Phys.](#) **1**, 4.1-4-22 (2010)
 - G. L. Vasconcelos
First order phase transition in a model for earthquakes
[Phys. Rev. Lett.](#) **76**, 4865 (1996)
 - P. Hähner, Y. Drossinos
Nonlinear dynamics of a continuous spring–block model of earthquake faults
[J. Phys. A: Math. Gen.](#) **31**, L185–L191 (1998)