



Lecture Course in the Integrated Research Training Group (IRTG)  
of the SFB 676 "Particles, Strings and the Early Universe"

Winter Term 12/13

**Workshop Seminar**  
**LIGHT SCALAR PARTICLES**  
**Pion, Higgs, Axion, Dilaton, Moduli**

**W. Buchmüller, T. Konstandin, J. Louis, A. Weiler, A. Westphal**

**Timeline:**

- 16.10. General discussion
- 23.10. Sigma-model for pions
- 30.10. Axial anomaly
- 06.11. Dilaton and conformal group
- 13.11. Conformal anomaly
- 20.11. Supercurrent for chiral and scale transformations
- 27.11. Axion and strong CP problem
- 04.12. Axion cosmology
- 11.12. Higgs as dilaton
- 18.12. Higgs as pseudo-Goldstone boson
- 08.01. Dilaton and moduli in string theory
- 15.01. Moduli stabilization
- 22.01. Axiverse – the many axions of string theory
- 29.01. Axion inflation (& monodromy)

**Date and Place:**

Tue, 11:00 – 12:30, SR 2/2a, DESY

**Starting on:**

16 Oct 2012

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