

# Search for leptoquarks and contact interactions at HERA

*Saturday, 18 July 2009 11:45 (15 minutes)*

A search for physics beyond the Standard Model is performed with high- $Q^2$  deep inelastic scattering events recorded with the ZEUS and H1 detectors at HERA. Complete data on scattering of polarized electrons and positrons from HERA II running are combined with electron and positron data from HERA I. ZEUS limits are derived on the effective mass scale in eeqq contact interactions, on the mass to the Yukawa coupling ratio for heavy-leptoquark models, on the effective Planck-mass scale in models with large extra dimensions and on the quark charge radius. H1 searches for scalar and vector leptoquarks coupling to first, second and third generation fermions, and sets constraints on leptoquark models, improving and superceding earlier H1 limits.

**Primary author:** DE JONG, Paul (Nikhef)

**Co-author:** ZEUS AND H1 COLLABORATIONS, The (DESY)

**Presenter:** Dr CIESIELSKI, Robert (DESY)

**Session Classification:** III. Higgs and New Physics

**Track Classification:** Higgs and New Physics