



PHYSIKALISCHES KOLLOQUIUM

Referentin: **Prof. Dr. Ruth Gregory**
Durham University, UK



Thema: **Noether in Nature**

Zeit und Ort: Dienstag, 18.12.2018, 16:40 Uhr
Recknagel-Bau, Hörsaal REC/C213, Haeckelstr. 3

Leiter: Dr. Frank Siegert

Kurzfassung: It is now a century since Noether proved her two seminal theorems on the relation between symmetry and conservation laws in physics. I will walk through Noether's theorems in detail, explaining her perspective and re-telling it through our modern eyes in physics, focussing particularly on how visionary and far reaching the result has been. I will then discuss local conservation laws and gauge symmetry, and how this underlies most of modern physics, concluding with a few personal remarks.

Biographie: Ruth studied at Cambridge with Stephen Hawking's relativity group, then went to Chicago for five years as a postdoctoral researcher (three years at Fermilab and two years at the University of Chicago). She then returned to the UK with a five-year advanced fellowship at DAMTP, and subsequently moved to Durham with a Royal Society University Research Fellowship where she became a professor of mathematics and physics in 2005. Ruth was awarded the 2006 Maxwell Medal by the Institute of Physics for her research in Theoretical Physics, and Royal Society Wolfson Merit Award in 2011. She currently spends three months a year on secondment at the Perimeter Institute in Canada.

