

## Seminar über Microwavephysics and Atmospheric Physics

**Referent:** Dr David MacFarlane, Millimetre Wave and EPR Group, School of Physics and Astronomy, University of St Andrews, Scotland

**Titel:** Millimetre Wave Radar: Research with Security Scanners, Boats, Volcanoes, Drones, Frogs & Geckos

Over the last 15 years the Millimetre Wave group at the University of St Andrews, Scotland, have designed, built and deployed millimetre wave radar systems for field use by a wide variety of academic and commercial partners. Millimetre wave radar offers the ability to gather high resolution remote sensing data using a portable ground based instrument in conditions where optical techniques fail. In this talk I will give an introduction to low power FMCW radar theory and show how our radars have been developed to maximise performance using this technique. Working at frequencies from 30 to 300 GHz for applications varying from close range, high resolution, real time security scanning to telemetered long range 3D topographic survey of volcanic lava domes, I will then give an overview of our radar projects past, present and future.

**Zeit:** Freitag, 22.12.2017, 10:15 Uhr

**Ort:** **Hörsaal A97**, Gebäude exakte Wissenschaften, Sidlerstrasse 5, Bern, Schweiz