THE ROYAL SOCIETY

Spatial Transformations: from Fundamentals to Applications

Date: 26-27 January, 2015

Organised by: Prof. Yang Hao FIET FIEEE (QMUL), Prof. Patrick Grant FREng FIMMM (Oxford), Prof. J. Roy Sambles FRS FInstP (Exeter), Prof. Alastair Hibbins (Exeter), Dr Thomas Philbin (Exeter), and Dr Robert Foster (QMUL).

This timetable is subject to change. The final version will be available at the event.

DAY 1				DAY 2			
SESSION 1 Chairs: **Tom Philbin** (Exeter) **Martin McCall** (Imperial)		SESSION 2 Chairs: **Chris Grovenor** (Oxford) **Ian Youngs** (DSTL)		SESSION 3 Chairs: **Yang Hao** (QMUL) **Alastair Hibbins** (Exeter)		SESSION 4 Chairs: **Roy Sambles** (Exeter) **Kobus Kuipers** (Twente)	
09.00	**Welcome by Sir Peter Knight & lead organiser(s)**						
09.15	**Sir John Pendry** Transformation optics: a universal design tool	14.00	**Raymond C. Rumpf** Spatially variant periodic structures in electromagnetics	09.00	**Sergei Tretyakov** Metasurfaces for general transformations of electromagnetic fields	13.30	**Andrea Alu** Metasurfaces with spatial and temporal modulation to manipulate and control waves
09.45	**Ulf Leonhardt** Cosmology in the laboratory	14.30	**Martin Wegener** Experiments on cloaking in optics, thermodynamics, and mechanics	09.30	**Stefano Maci** Metasurface Transformation Electromagnetics	14.00	**Philippe Tassin** Transformation optics beyond the manipulation of light trajectories
10.15	**Discussion**	15.00	**Discussion**	10.00	**Discussion**	14.30	**Discussion**
10.45	**Coffee & Poster Session**	15.30	**Tea & Poster Session**	10.30	**Coffee & Poster Session**	15.00	**Tea & Poster Session**
11.30	**Nader Engheta** Optics of Metastructures			11.00	**Raj Mittra** A new Look at transformation electromagnetics approach for designing electromagnetic devices	15.30	**Oliver Wright** Watching surface waves in phononic crystals
						16.00	**Discussion**
12.00	**Igor Smolyaninov** Experimental demonstration of transformation optics devices	16.15	**Patrick Grant** Manufacture of electrical and magnetic graded and anisotropic materials for novel manipulations of microwaves	11.30	**Douglas Werner** Spatial transformation enabled electromagnetic devices: From radio frequencies to optical wavelengths	16.15	Future directions: **Ian Youngs** (DSTL)
12.30	**Discussion**	16.45	**Discussion**	12.00	**Discussion**	16.30	**Panel discussion**
13.00	**LUNCH**	17.00	**CLOSE**	12.30	**LUNCH**	17.00	**CLOSE**

*Draft programme – correct as of **8 December, 2014** – subject to change*