

4th Workshop on Mathematical Aspects of Network Synthesis

PROGRAMME

Wednesday 21 September 2016

Lectures will be held in Lecture Room 2, Department of Engineering, Trumpington St

9:15 Registration and coffee
Lecture Room 4
CHAIR: Keith Glover

10:00 **Malcolm Smith**
(University of Cambridge)
A new look at the Ladenheim catalogue
(In Memoriam R. Kalman)

11:00 **Coffee** (Lecture Room 4)

CHAIR: Rodolphe Sepulchre

11:30 **Arjan Van der Schaft**
(University of Groningen)
Towards nonlinear network synthesis

12:00 **Venkat Chandrasekaran**
(California Institute of Technology)
Finding Planted Subgraphs using the Schur-Horn Relaxation

12:30 **Lunch** (Lecture Room 4)

CHAIR: Masaaki Kanno

13:45 **David Limebeer**
(University of Oxford)
Passive Networks in the Control of Aeroelastic Phenomena in Long-Span Suspension Bridges

14:15 **Jason Jiang**
(University of Bristol)
Mechanical Network Synthesis of Biquadratic and Bicubic Impedances

14:45 **Timothy Hughes**
(University of Cambridge)
Behavioral network synthesis. Part I: passivity.

15.15 **Tea** (Lecture Room 4)

CHAIR: Fulvio Forni

15:45 Group photograph

16:00 **Nicos Karcantias**
(City University, London)
Passive Network Redesign and Implicit Network Descriptions

16:30 **Alessandro Morelli**
(University of Cambridge)
Group action, equivalence and realisation in electrical networks

17:00 CLOSE

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Thursday 22 September 2016

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9:30 Coffee Lecture Room 4

CHAIR: Malcolm Smith

10:00 **Paul Fuhrmann** *Control and Interpolation*
(Ben Gurion University) *(In Memoriam U. Helmke)*

11:00 **Coffee** (Lecture Room 4)

CHAIR: Karl Åström

11:30 **Patrick Dewilde** *Between inner-outer and spectral factorization*
(Technical University of Munich)

12:00 **Rodolphe Sepulchre** *Localised network behaviours*
(University of Cambridge)

12:30 **Lunch** (Lecture Room 4)

CHAIR: Glenn Vinnicombe

13:45 **Fabien Seyfert** *Analytical Techniques for Identification and Design of*
(INRIA, France) *Microwave Filters*

14:15 **Michael Chen** *Realization of Biquadratic Impedances as Five-Element Bridge*
(University of Hong Kong) *Networks*

14:45 **Paolo Rapisarda** *From data to state model via duality*
(University of Southampton)

15:15 **Tea** (Lecture Room 4)

CHAIR: Malcolm Smith

15:45 **Richard Pates** *Decomposing Analysis and Synthesis Problems in Electrical*
(University of Lund) *Networks*

16:15 **Timothy Hughes** *Behavioral network synthesis. Part II: reciprocity.*
(University of Cambridge)

16:45 Close