

## Program DISC Summer School

A Systems and Control Perspective on Privacy, Safety, and Security in Large-Scale Cyber-Physical Systems  
NH Atlantic, The Hague, The Netherlands, July 3-6, 2017

### Monday July 3, 2017

08.45 – 10.15	Registration	<b>Differential Privacy</b>
10.15 – 10.30	Organisers	Opening Summer School
10.30 – 12.00	Jerome Le Ny	Introduction to Differential Privacy
12.00 – 13.15	Lunch	
13.15 – 14.45	Jerome Le Ny	Differential Privacy in filtering and control
14.45 – 15.00	Break	
15.00 – 17.00	Tutorials	Computer Exercises
17.00 – 17.15	Break	
17.15 – 18.15	Discussion	Discussions on future research direction in differential privacy
18.15 – 20.00	Dinner	

### Tuesday July 4, 2017

08.45 – 10.15	Fabio Pasqualetti	<b>Secure Control Systems</b>
10.15 – 10.30	Break	Introduction to security issues in CPS and attack models
10.30 – 12.00	Fabio Pasqualetti	Structural conditions for detectability/identifiability of attacks and examples
12.00 – 13.15	Lunch	
13.15 – 14.45	Claudio De Persis	Resilient-control under Denial of Service and Jamming-resilient self-triggered coordination
14.45 – 15.00	Break	
15.00 – 17.00	Tutorials	Computer / classroom exercises
17.00 – 17.15	Break	
17.15 – 18.15	Discussion	Panel discussion on open problems in secure control systems (Fabio Pasqualetti, Claudio De Persis and Rene Pluis - country cyber security lead of Cisco Systems International )
18.15 – 20.00	Dinner	

### Wednesday July 5, 2017

08.45 – 10.15	Henrik Sandberg	<b>Secure &amp; Safety Control Systems</b>
10.15 – 10.30	Break	Control systems security metrics and risk management
10.30 – 12.00	Manuel Mazo	Automatic synthesis of safe controllers
12.00 – 13.15	Lunch	
13.15 – 14.45	Peyman Mohajerin Esfahani	Fault detection for large scale nonlinear systems
14.45 – 15.00	Break	
15.00 – 17.00	Tutorials	Computer / classroom exercises
17.00 – 17.15	Break	
17.15 – 18.15	Discussion	Panel discussion on open problems in safety control systems (Yiannis Papadopoulos, Rafael Wisniewski, Manuel Mazo, Peyman Mohajerin Esfahani)
18.15 – 20.00	Dinner	

### Thursday July 6, 2017

08.30 – 10.00	Rafael Wisniewski	<b>Safety Control Systems</b>
10.00 – 10.15	Break	Barrier certificates for stochastic and hybrid systems
10.15 – 11.45	Yiannis Papadopoulos	Model-based dependability analysis and optimisation of systems
11.45 – 12.30	Discussion	Exchange ideas with the experts
12.30 – 12.45	Closing	Closing and certificates
12.45	Lunch	Lunch preceded by group photo