Quantum Computation and Communication

WIC Midwintermeeting, February 16th, 2017 Eindhoven, TU/e, Zwarte Doos

Organized by:

Werkgemeenschap voor Informatie- en Communicatietheorie
IEEE Benelux Chapter on Information Theory

The field of quantum Information studies and exploits subtle aspects of quantum mechanics, such as entanglement and coherence, to build new technologies in computation and communication, which are unattainable by classical means. More recently, quantum information has become a field of strategic importance with important governmental support, such as the creation of the Dutch institute for quantum technology (QuTech) or the future European Union flagship, in combination with investment by global corporations such as Google, Microsoft, Intel and IBM. At the 2017 WIC Midwintermeeting experts from different scientific domains will share with us their views on recent advances in the field of quantum technologies.

Program:

09:30 - 10:00 Registration and Coffee

10:00 - 10.15 Opening

10.15 - 11.00 Barbara Terhal (RWTH Aachen University),

"Introduction to Quantum Information Technologies"

11.00 - 11.45 Anna Pappa (University College London),

"Quantum Cryptography"

11.45 - 12.00 Short Break

12.00 - 12.45 Steve Kolthammer (Oxford University),

"Quantum information over integrated photonic circuits"

12.45 - 13.45 Lunch Break

13.45 - 14.30 Ronald de Wolf (CWI, Amsterdam),

"Quantum Computation"

14.30 - 15.15 David Elkouss (TU Delft),

"Quantum Communication"

15.15 - 15.30 Short Break

15.30 - 16.15 Volkher Scholz (Universiteit Gent),

"Convex Optimization in quantum information"

16.15 - 17.00 Closing and Drinks

Registration: Please use the following <u>document for registration</u>. The registration deadline is February 5, 2017. The maximum number of registrations is one hundred (FCFS) due to the room capacity. The registration fee (including lunch, coffee/tea and drinks) is 50 euro (25 euro for students), to be paid in cash.

Directions: Zwarte Doos, TU/e Eindhoven. Den Dolech 2, 5612 AZ Eindhoven, Netherlands.

In case you have further **questions**, please contact the organizers: Raul Garcia-Patron Sanchez, ULN, rgarciap@ulb.ac.be, Boris Skoric, TU/e, b.skoric@tue.nl