Celebrating the Choi-Jamiołkowski Isomorphism

Online Event
March 1-2, 2023

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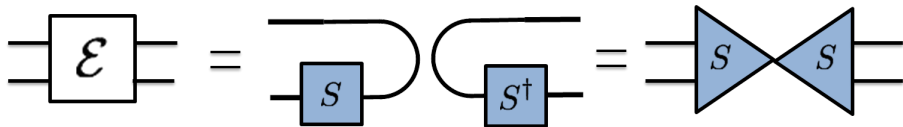
Guests of Honor
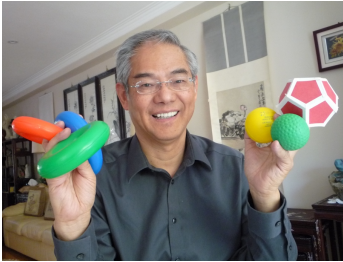
Prof. Man-Duen Choi
(Toronto)

Prof. Andrzej Jamiołkowski
(Toruń)

Confirmed List of Invited Speakers

Emily Adlam (London)	**Sabrina Maniscalco** (Helsinki)
Fabio Benatti (Trieste)	**Alexander Müller-Hermes** (Oslo)
Ingemar Bengtsson (Stockholm)	**Saverio Pascazio** (Bari)
Giulio Chiribella (Hongkong)	**Vern Paulsen** (Waterloo)
Ángela Capel Cuevas (Tübingen)	**Erling Størmer** (Oslo)

The **Choi-Jamiołkowski Isomorphism** is a remarkable result in the field of open quantum systems and quantum information theory establishing the correspondence between linear maps in operator algebras and bipartite operators in the corresponding Hilbert spaces. Nearly five decades ago it was established that positive maps correspond to block-positive operators [1] and completely positive maps correspond to positive operators [2]. The workshop aims to celebrate this fundamental result and is devoted to new frontiers in the research in open quantum systems, entanglement and quantum information theory.

[1] A. Jamiołkowski, "Linear transformations which preserve trace and positive semidefiniteness of operators", Rep. Math. Phys. 3, 275-278 (1972).

[2] M.-D. Choi, "Completely positive linear maps on complex matrices", Linear Algebra Appl. 10, 285-290 (1975).

Man Duen Choi and Andrzej Jamiołkowski, Toruń 2008

Organizers of the Workshop

Dariusz Chruściński (Nicolaus Copernicus University, Poland)

Vinayak Jagadish (Jagiellonian University, Poland)

Francesco Petruccione (Stellenbosch University, South Africa)

Karol Życzkowski (Jagiellonian University, Poland)