

# Call for Participation to Special Track on Quantum Computing and Artificial Intelligence

Collocated with The Australasian Database Conference 2017

September, Brisbane, Queensland Australia

The past year of 2016 has witnessed the remarkably increasing research interests on the interplay between quantum computation and artificial intelligence, two areas that are embracing rapid exciting advancements respectively. The exchange of ideas, methods, and techniques between the two corresponding communities will greatly enrich the scope of the two research areas, help to build beneficial connections, and provide fundamentally innovative ideas to solve core problems in both areas. This special track on Quantum Computing and Artificial Intelligence is organized with the aim to foster collaborations between researchers from both fields and to promote the research on this exciting new direction.

The special track will have a half-day format and includes both invited and contributed talks. It will be part of the 28<sup>th</sup> Australasian Database Conference 2017 (ADC 2017), to be held in Brisbane, Australia in September. The Australasian Database Conference series is an annual summit for researchers and practitioners working on database systems, data-driven applications and data analytics in Australia, New Zealand and worldwide. All attendees should register the main conference.

## Topics of interest include but are not limited to:

- Quantum algorithms for classical problems in machine learning and optimization
- Quantum advantages in the processing of big data systems and data analytics
- Quantum programming and verification tools
- Applications of classical learning algorithms to quantum computation
- The connection between neural networks and condensed matter physics
- Security and privacy issues against quantum attacks in big data systems
- Learning of quantum objects such as quantum states and quantum operations

## Submission methods:

Research track papers, the same as ADC, with a special note on the Special Track on Quantum Computing and Artificial Intelligence. Accepted papers will be published with Springer.

Invited speech, please submit your abstract with a short biography to Special Track chairs.

## Important dates:

5 June, 2017 – all abstracts

12 June, 2017 – submission deadline

10 July, 2017 – notifications

## Track chairs:

Runyao Duan, University of Technology Sydney ([Runyao.Duan@uts.edu.au](mailto:Runyao.Duan@uts.edu.au))

Zhengfeng Ji, University of Technology Sydney ([Zhengfeng.Ji@uts.edu.au](mailto:Zhengfeng.Ji@uts.edu.au))