

Session Program

Jan 11 - 13, 2019

**[POTUS2019] Quantum Entanglement
Science and Technology**

Caltech/Cahill Science Sessions

Andaz WH/Google/Caltech

Sun, January 13

8:30 AM

Caltech/Cahill Science Sessions: Caltech Session C-I

Session | **Location:** Caltech, Cahill | **Convener:** JoAnne Hewett

8:30 – 9:00 AM

O(sec) coherence microwave 3D superconducting quantum systems

Speaker

Alex Romanenko

9:00 – 9:20 AM

Atomic clocks and quantum sensors for precision measurements in space laboratory

Speaker

Nan Yu

9:20 – 9:50 AM

Quantum Science & Technology at Fermilab & ORNL

Speakers

Panagiotis Spentzouris, Travis Humble

10:05 AM

10:25 AM

Caltech/Cahill Science Sessions: Caltech Session C-II

Session | **Location:** Caltech, Cahill | **Convener:** Daniel Oblak

10:25 – 10:55 AM

Quantum tools to explore the Universe

Speaker

Ron Walsworth

10:55 – 11:25 AM

Quantum Networks and Communications

Speaker

Prem Kumar

11:25 – 11:55 AM

Optical quantum networks with luminescent centers in solids

Speaker

Andrei Faraon

11:55 AM – 12:35 PM

Photonic Quantum Information Processing

Subcontributions

(I) Computing

Speaker

Mercedes Gimeno-Segovia

(II) Networking

Speaker

Saikat Guha

12:35 PM

1:50 PM

Caltech/Cahill Science Sessions: Caltech Session C-III**Session** | **Location:** Caltech, Cahill | **Convener:** Roger Blandford

1:50 – 2:20 PM

Is quantum gravity detectable in gravitational wave interferometers?**Speaker**

Kathryn Zurek

2:20 – 2:50 PM

Quantum Hard Drive and Fracton Order**Speaker**

Xie Chen

2:50 – 3:20 PM

Searching for New Particles and Forces with Polar Molecules**Speaker**

Nick Hutzler

3:20 – 3:50 PM

NSPD quantum sensors for Deep Space Optical Communication and Quantum Information Science**Speaker**

Matt Shaw

3:50 PM

4:05 PM

Caltech/Cahill Science Sessions: Session C-IV**Session** | **Location:** Caltech, Cahill | **Convener:** Maria S.

4:05 – 4:35 PM

Dark Matter state of affairs**Speaker**

Rocky Kolb

4:35 – 5:05 PM

New Physics discovery with deep learning**Speaker**

Maurizio Pierini

5:05 – 5:30 PM

Discussion**Speaker**

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5:35 PM