

Quantum Optomechanical Architectures for Dark Matter Detection

Report of Contributions

Contribution ID: 0

Type: **not specified**

Welcome and intro remarks (Dan Carney)

Monday, 28 October 2019 09:00 (15 minutes)

Contribution ID: 1

Type: **not specified**

Welcome remarks

Contribution ID: 2

Type: **not specified**

Review of dark matter model space: parameter regimes, signal types (Gordan Krnjaic)

Monday, 28 October 2019 09:15 (30 minutes)

Contribution ID: 3

Type: **not specified**

Review on quantum sensing with mechanical systems (Cindy Regal)

Monday, 28 October 2019 09:45 (30 minutes)

Contribution ID: 4

Type: **not specified**

Overview of detector array & gravitational detection concept (Jake Taylor)

Monday, 28 October 2019 11:00 (1 hour)

Contribution ID: 5

Type: **not specified**

Lessons from liquid noble detectors (Rafael Lang)

Monday, 28 October 2019 14:00 (30 minutes)

Contribution ID: 6

Type: **not specified**

Lessons from axion searches (Nicole Crisosto)

Monday, 28 October 2019 14:30 (30 minutes)

Contribution ID: 7

Type: **not specified**

Considerations with specific architectures: levitated devices (Andy Geraci)

Monday, 28 October 2019 16:00 (30 minutes)

Contribution ID: 8

Type: **not specified**

Considerations with specific architectures: suspended pendulums (Nobuyuki Matsumoto)

Monday, 28 October 2019 16:30 (30 minutes)

Contribution ID: 9

Type: **not specified**

Some non-gravitational DM targets with optomechanics (Dan Carney)

Tuesday, 29 October 2019 09:30 (30 minutes)

Contribution ID: **10**

Type: **not specified**

Detection proposals outside of mechanical sensing (Tongyan Lin)

Tuesday, 29 October 2019 09:00 (30 minutes)

Contribution ID: 11

Type: **not specified**

Lessons from previous sensing experiments: LIGO (Thomas Corbitt)

Tuesday, 29 October 2019 11:00 (30 minutes)

Contribution ID: 12

Type: **not specified**

Lessons from previous sensing experiments: HAYSTAC (Ben Brubaker)

Tuesday, 29 October 2019 11:30 (30 minutes)

Contribution ID: 13

Type: **not specified**

Backaction evasion measurements (Jon Cripe)

Tuesday, 29 October 2019 13:30 (30 minutes)

Contribution ID: 14

Type: **not specified**

Superfluid optomechanics (Jack Harris)

Tuesday, 29 October 2019 14:00 (30 minutes)

Contribution ID: 15

Type: **not specified**

Wrap-up discussion: roadmap to large scale experiment

Tuesday, 29 October 2019 14:30 (30 minutes)