

Workshop on
“**STRONG-DM 2019, Searches, Theories, Results, Opportunities, and New Ideas
for sub-GeV Dark Matter**”

August 5 – August 16, 2019

organized by

**Brian Batell (U of Pittsburgh), Nicolás Bernal (U Antonio Nariño), Xiaoyong Chu (HEPHY
Vienna), Alejandro Ibarra (TU Munich), Hye-Sung Lee (KAIST),
Josef Pradler (HEPHY Vienna), Tomer Volansky (Tel Aviv U)**

Week 2

August 12 – 16, 2019

• **Monday, August 12, 2019**

08:45 – 09:00 **Registration**

09:00 – 9:35 **Alexey Boyarsky**

Decaying and warm DM, a status report

09:35 – 10:10 **Sergei Gninenko**

NA64: new results and prospects

10:10 – 10:50 *Coffee Break*

10:50 – 11:25 **Neelima Sehgal**

CMB-HD: Probing Dark Matter Particle Properties with Ultra-High-Resolution CMB Lensing

11:25 – 12:00 **Nicolás Bernal**

Ultraviolet Freeze-in and Non-Standard Cosmologies

12:00 – 14:00 *Lunch Break*

14:00 – 14:35 **Haipeng An**

Light fermionic dark matter and the Lyman-alpha constraint

14:35 – 15:10 **Timon Emken**

Direct detection of sub-GeV dark matter with strong interactions through a light mediator

15:10 – 15:45 *Coffee Break*

15:45 – 16:15 **Anastasia Sokolenko**

Phenomenology of GeV-scale scalar portal

16:15 – 16:45 **Gianluca Inguglia**

First results and prospects for dark sector physics at Belle II

19:00 **Conference Dinner**

• **Tuesday, August 13, 2019**

09:00 – 9:35 **Tommi Tenkanen**

Initial conditions for non-thermal dark matter production

09:35 – 10:10 **Frank Deppisch**

Neutrinoless Double Beta Decay and the Search for Lepton Number Violation

10:10 – 10:50 *Coffee Break*

10:50 – 11:25 **Florian Reindl**

Cryogenic scintillating dark matter detectors with a particular focus on the CRESST experiment

11:25 – 12:00 **Armin Shayeghi**

Searching for light DM with molecular matter waves

12:00 – 14:00 *Lunch Break*

14:00 – 14:35 **Alberto Escalante del Valle**

Search for dark sectors and long lived particles at the LHC

14:35 – 15:10 **Yanou Cui**

Cosmic Archaeology with Gravitational Waves from (Axion) Cosmic Strings

15:10 – 15:45 *Coffee Break*

15:45 – 16:15 **Lukas Semmelrock**

Light dark states with electromagnetic form factors

16:15 – 16:45 **Itay Bloch**

Comagnetometers as a Probe to New Physics

- **Wednesday, August 14, 2019**

09:30 – 10:45 **Rouven Essig**

Recent progress in direct detection of sub-GeV dark matter

10:45 – 11:15 *Coffee Break*

11:15 – 12:30 **Torsten Bringmann**

Inverse direct detection: Novel constraints on light dark matter

12:30 – 14:30 *Lunch Break*

14:30 – 15:45 **Thomas Schwetz**

Axion minicluster and constraints from iso-curvature fluctuations

15:45 – 16:15 *Coffee Break*

16:15 – 16:30 **Laurent Vanderheyden**

Dark matter direct detection is testing freeze-in

16:30 – 16:45 **Saniya Heeba**

Freezing-in of Light Scalars

- **Thursday, August 15, 2019: Social Program: Excursion to Winery**

- **Friday, August 16, 2019**

09:15 – 10:00 **Felix Kahlhoefer**

Strongly interacting dark sectors in the early Universe and at the LHC

10:00 – 11:15 **Céline Boehm**

TBA

11:15 – 11:45 *Coffee Break*

11:45 – 13:00 **Tomer Volansky**

Dynamical Emergence of a Small cosmological constant

13:00 – 14:30 *Lunch Break*

All talks take place at ESI, Boltzmann Lecture Hall!