

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!**