

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 1

August 5 – 9, 2019

• **Monday, August 5, 2019**

09:00 – 09:30 **Registration**

09:30 – 10:45 **Joshua Ruderman**

*Thermal Relic Targets*

10:45 – 11:15 *Coffee Break*

11:15 – 12:30 **Tien-Tien Yu**

*Theory of dark matter-electron scattering*

12:30 – 14:30 *Lunch Break*

14:30 – 15:15 **Hooman Davoudiasl**

*Ultra Light Boson Dark Matter and Event Horizon Telescope Observations of M87\**

15:15 – 15:45 *Coffee Break*

15:45 – 16:30 **Camilo Garcia-Cely**

*Effective-Range Approach to Dark Matter Self-Scattering*

• **Tuesday, August 6, 2019**

09:30 – 10:45 **Adam Ritz**

*EDMs and dark sectors*

10:45 – 11:15 *Coffee Break*

11:15 – 12:30 **David McKeen**

*Light unstable dark matter and relic neutrinos*

12:30 – 14:30 *Lunch Break*

14:30 – 15:15 **Wei Xue**

*Can the ANITA anomalous events be due to new physics?*

15:15 – 15:45 *Coffee Break*

15:45 – 16:30 **Nassim Bozorgnia**  
*The Dark Matter Component of the Gaia Sausage Structure*

• **Wednesday, August 7, 2019**

09:00 – 10:15 **Andrei Derevianko**  
*Probing dark sector with quantum sensors*

10:15 – 10:40 *Coffee Break*

10:40 – 11:20 **Martti Raidal**  
*Recent developments in understanding primordial black hole dark matter*

11:20 – 12:00 **Pyongwon Ko**  
*Dark pion DM: WIMP vs. SIMP*

12:00 – 12:45 **Ulf Leonhardt**  
*Cosmology in the laboratory*

12:45 – 14:30 *Lunch Break*

14:30 – 15:15 **Free discussions**

15:15 – 15:45 *Coffee Break*

15:45 – 16:30 **Free discussions**

• **Thursday, August 8, 2019**

**Social Program: Excursion to Melk**

• **Friday, August 9, 2019**

09:30 – 10:45 **Thomas Hambye**  
*Dark photon production of DM*

10:45 – 11:15 *Coffee Break*

11:15 – 12:30 **Brian Thomas Batell**  
*Flavor-specific scalar mediators*

12:30 – 14:30 *Lunch Break*

14:30 – 15:15 **Ernest Ma**  
*See-saw Dark Matter and Higgs Decay*

15:15 – 15:45 *Coffee Break*

15:45 – 16:30 **Yu-Feng Zhou**  
*Probing dark matter through cosmic-ray antiparticles*

**All talks take place at ESI, Boltzmann Lecture Hall!**