

**Session Program**

**24-29 Aug 2023**

**Nobel Symposium on Dark Matter**

***Sessions***

Rånäs Slott, Stockholm area  
Rånäs Slott, 762 96 Rånäs, Schweden

# Thursday 24 August

15:00

## Sessions: Session 1

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Kathryn Zurek

15:00–15:30 **Search for DM Particles - A Historical Perspective**

**Speaker**

Bernard Sadoulet

15:30

16:00

## Sessions: Session 2

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Gianfranco Bertone

16:00–16:30 **Resolving DAMA**

**Speaker**

Reina Maruyama

16:30–17:00 **A Definitive Test of the Cold DM Hypothesis**

**Speaker**

Carlos Frenk

17:30

17:00–17:30 **Discussion**

# Friday 25 August

09:00

## Sessions: Session 3

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Marco Cirelli

09:00–09:30 **The XENON Direct DM Detection Program**

**Speaker**  
Elena Aprile

09:30–10:00 **Direct DM Detection with LZ**

**Speaker**  
Daniel Akerib

10:00–10:30 **Discussion**

10:30

11:00

## Sessions: Session 4

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Dan Hooper

11:00–11:30

**DARWIN/XLZD - A Future Xenon Observatory for DM and Other Rare Interactions**

**Speaker**  
Laura Baudis

11:30–12:00 **Results and Plans for Direct Detection Based on Argon**

**Speaker**  
Art McDonald

12:00–12:30 **Discussion**

12:30

14:00

## Sessions: Session 5

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Maxim Pospelov

14:00–14:30 **Detectors to Search for DM from Neutrino Masses to GeV**

**Speaker**  
Matt Pyle

14:30–15:00 **Searching for QCD Axion DM below 1 Micro-eV**

**Speaker**  
Kent Irwin

15:00–15:30 **Discussion**

15:30–16:00 **Break**

16:00–16:30 **Searching for QCD Axion DM above 1 Micro-eV**

**Speaker**  
Gray Rybka

17:00

16:30-17:00

**Discussion**

# Saturday 26 August

09:30

## Sessions: Session 6

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Laura Baudis

09:30–10:00 **DM Searches in Accelerators Experiments**

**Speaker**  
Albert de Roeck

10:00–10:30 **Discussion**

10:30

11:00

## Sessions: Session 7

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Daniel Akerib

11:00–11:30 **Developments in Low-Threshold DM Direct Detection**

**Speaker**  
Rouven Essig

11:30–12:00 **The Future TESSERACT Project**

**Speaker**  
Julien Billard

12:00–12:30 **Discussion**

12:30

14:00

## Sessions: Session 8

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Tracy Slatyer

14:00–14:30 **Sterile Neutrinos as DM**

**Speaker**  
Misha Shaposhnikov

14:30–15:00 **Axion DM**

**Speaker**  
Pierre Sikivie

15:00–15:30 **Discussion**

15:30

# Sunday 27 August

10:30

## Sessions: Session 9

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Misha Shaposhnikov

10:30–11:00 **Rare Species of DM**

**Speaker**  
Maxim Pospelov

11:00–11:30 **Constraining Dark Sectors with 21-cm Cosmology**

**Speaker**  
Tomer Volansky

11:30–12:00 **Discussion**

12:00

# Monday 28 August

09:00

## Sessions: Session 10

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Carlos Frenk

09:00–09:30

### Status of the Galactic Center Gamma-Ray Excess

**Speaker**

Dan Hooper

09:30–10:00

### Searching for Sub-GeV DM Using X-Ray Galactic Data

**Speaker**

Marco Cirelli

10:00–10:30

### Discussion

10:30

11:00

## Sessions: Session 11

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Reina Maruyama

11:00–11:30

### Gravitational Wave Probes of DM

**Speaker**

Gianfranco Bertone

11:30–12:00

### Primordial Black Holes as a DM Candidate

**Speaker**

Anne Green

12:00–12:30

### Discussion

12:30

14:00

## Sessions: Session 12

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Elena Aprile

14:00–14:30

### Cosmological Signatures of DM Annihilation and Decay

**Speaker**

Tracy Slatyer

14:30–15:00

### Particles versus Modified Gravity

**Speaker**

Celine Boehm

15:00–15:30

### Discussion

15:30–16:00

### Break

16:00–16:30

### From Direct Detection to Astrophysical Probes of DM Substructure

**Speaker**

Kathryn Zurek

17:00

16:30-17:00

**Discussion**



## Tuesday 29 August

10:00

12:00

### Sessions: Session 13

**Session** | **Location:** Rånäs Slott, Stockholm area, Rånäs Slott, 762 96 Rånäs, Schweden | **Convener:** Anne Green

10:00–12:00

**Round table discussion: The future of dark matter physics**