

TOPICAL WORKSHOP ON DARK MATTER

Monday, 13 November 2017

8:00 am - 9:00 am Registration

Welcome addresses by

9:00 am - 9:10 am **Kok Khoo Phua** (Director, Institute of Advanced Studies, NTU)

9:10 am - 9:20 am **Lars Brink** (Chalmers University of Technology)

Session Chaired by: Kok Khoo Phua

9:20 am - 10:05 am **Lars Bergström** (Stockholm University)
Dark Matter – Where do we stand?

10:05 am - 10:50 am **Frank Wilczek** (Nobel Laureate in Physics 2004)
New Ideas for Axion Searches

10:50 am - 11:30 am Group Photo & Coffee Break

Session Chaired by: Lars Brink

11:30 am - 12:15 pm **Carlos Frenk** (Durham University)
A conclusive test of cold dark matter

12:15 pm - 1:00 pm **Joakim Edsjö** (Stockholm University)
Searching for dark matter via neutrinos from the Sun and the Earth

1:00 pm - 2:00 pm Lunch

Session Chaired by: Lars Bergström

2:00 pm - 2:45 pm

Ali Chamseddine (American University of Beirut)
Cosmology and Singularities in Mimetic Gravity

2:45 pm - 3:30 pm

Erik Verlinde (University of Amsterdam)
From Emergent Gravity to Dark Energy and Dark Matter

3:30 pm - 4:00 pm

Coffee Break

4:00 pm - 5:00 pm

Karim Benabed (IAP) via Skype
Planck insights on Dark Matter

6:00 pm

****Depart for Night Safari**

7:00 pm - 10:00 pm

Night Safari (80 Mandai Lake Road)

**Excursion: Transportation to the Night Safari will be provided.
Please assemble at the NEC Guest Wing Lobby (Level 1) by 5.55pm.

Tuesday, 14 November 2017

Session Chaired by: Joakim Edsjö

9:30 am - 10:15 am **Oleg Ruchayskiy** (University of Copenhagen)
Sterile neutrino dark matter

10:15 am - 11:00 am **Alexey Boyarsky** (Leiden University)
What do we know about possible properties of dark matter particle?

11:00 am - 11:30 am Coffee Break

Session Chaired by: Hai Siong Tan

11:30 am - 12:15 pm **Ilias Cholis** (Johns Hopkins University)
Searching for Dark Matter in Gravitational Waves

12:15 pm - 1:00 pm **Michael Tobar** (University of Western Australia)
The ORGAN Experiment: An axion haloscope above 15 GHz

1:00 pm - 2:00 pm Lunch

Session Chaired by: Lock Yue Chew

2:00 pm - 2:45 pm **Pierre Sikivie** (University of Florida)
Dark Matter Axions

2:45 pm - 3:30 pm **Kentaro Miuchi** (Kobe University)
Direction sensitive dark matter search

3:30 pm - 4:00 pm Coffee Break

Session Chaired by: Erik Verlinde

4:00 pm - 5:00 pm **Gianfranco Bertone** (University of Amsterdam)
Identifying the nature of dark matter

5:45 pm ****Depart for Dinner Banquet**

6:30 pm - 9:00 pm **Dinner Banquet (By Invitation only)**
Churchill Room, Tanglin Club (5 Stevens Road)

**Transportation to the dinner banquet will be provided.
Please assemble at the NEC Guest Wing Lobby (Level 1) by 5.40pm.

*All talks included 10 minutes for discussion

Wednesday, 15 November 2017

Session Chaired by: Rainer Helmut Dumke

9:30 am - 10:15 am **Henry Tsz-King Wong** (Academia Sinica, Taiwan)
Dark Matter (and Neutrino) Physics with sub-keV Germanium Ionization Detectors

10:15 am - 11:00 am **Luca Grandi** (The University of Chicago)
The First Ton-Scale Xe TPC: XENON1T challenges, results and future upgrade

11:00 am - 11:30 am Coffee Break

Session Chaired by: Pinaki Sengupta

11:30 am - 12:15 pm **Elisabetta Barberio** (University of Melbourne)
A Southern Hemisphere prospective on Dark Matter

12:15 pm - 1:00 pm **Chang Jin** (Chinese Academy of Sciences)
Dark Matter Particle Explorer: The First Chinese Cosmic Ray and Hard γ -ray Detector in Space

1:00 pm - 2:00 pm Lunch

Session Chaired by: Pierre Sikivie

2:00 pm - 2:45 pm **Jianglai Liu** (Shanghai Jiao Tong University)
The PandaX Experiment and Its Recent Results

2:45 pm - 3:30 pm **Richard Gaitskell** (Brown University)
Direct Dark Matter Detection – a 30 year perspective into the past and into the future

3:30 pm - 3:45 pm Closing remarks

3:45 pm - 4:15 pm Coffee Break