

## 3rd South American Dark Matter workshop (Dec.2 - Dec. 4, 2020) @ ICTP-SAIFR

### Schedule

Please notice that times are shown in local time in São Paulo, Brazil (GMT-3)

Session will take place on Zoom (see link on webpage) and will be recorded. By connecting you are automatically giving your permission, unless you veto it explicitly by sending an email to: [fabio.iocco.unina.AT.gmail.com](mailto:fabio.iocco.unina.AT.gmail.com)

#### Day 1: (December 2)

10:00 Opening & welcome

10:15 Gianfranco Bertone "A new era in the search of Dark Matter" (25+10)

10:50 Paddy Fox "Status of theoretical candidates of DM" (25+10)

11:25 Giuliana Fiorillo "Direct Detection: a review of techniques and results" (25+10)

#### Astro

12:30 Julio Navarro "Going Non-Linear: Contrasting LCDM with observations of the internal properties of galaxies" (25+10)

13:05 Umberto Maio "Early galaxy formation in dark matter cosmological models" (15+5)

13:25 Arianna di Cintio "Ultra Diffuse Galaxies" (15+5)

13:45 Rain Kipper "Lopsided galaxies: the wake of dynamical friction and tidal forces, a connection to dark matter" (15+5)

14:05 J. Sanchez Almeda "Principle of maximum entropy and cores in dwarf galaxies" (15+5)

14:25 Kyle Oman "An explanation for the diversity of dwarf galaxy rotation curves" (15+5)

#### Indirect gammas

15:20 M. Sanchez-Conde "Gamma Rays from MW dark satellites" (15+5)

15:40 Javier Conoronado-Blazquez "Unidentified gamma-ray sources" (15+5)

16:00 Anastasia Sokolenko "Dark Particles in the IGM" (15+5)

16:20 Elena Pinetti "INTEGRAL X-ray subGeV" (15+5)

16:40 Aion Viana "DM in the Galactic halo with SWGO" (15+5)

17:00 Alfonso Zerwekh "Non-Abelian in the dark sector: opportunities for CTA" (15+5)

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**Day 2: (December 3)**

**Direct**

- 09:00** Tim Wolf "Latest results from the XENON1T detector" (20+5)  
**09:25** Nicolás Avalos "The DMSQUARE Experiment" (20+5)  
**09:50** Elisabetta Baracchini "Directional Dark Matter searches with the CYGNO/INITIUM project" (20+5)  
**10:15** Greg Rischbieter "A Review of the LUX Dark Matter Experiment: Previous Analyses and Current Efforts" (20+5)  
**10:40** Alexander Kish "The DarkSide experiment for direct dark matter search with liquid argon" (20+5)  
**11:05** Tessio Melo "XENON1T Anomaly: A Light Z' " (8 +2)  
**11:15** Leonardo Peres "Boosted Dark Matter Analysis in Large TPC Experiments" (8+2)

**Theory**

- 11:30** Malcolm Fairbairn "Astrophysical constraints on invisible dark matter" (20+5)  
**11:55** Andrew Cheek "New insights into dark matter from EFT basics" (15+5)  
**12:15** Marcos Cardoso Rodriguez "Dark Matter in the SUSY B-L Model with three non-identical right handed neutrinos" (15+5)  
**12:35** Juri Smirnov "New production mechanisms and search strategies for sub-GeV dark matter" (15+5)  
**12:55** Peter Denton "Ultralight Fermionic Dark Matter" (15+5)  
**13:15** Alexis Plascencia "New Forces, Dark Matter and Electric Dipole Moments" (15+5)  
**13:35** Matheus Hostert "New signatures and opportunities with dark neutrino sectors" (15+5)  
**13:55** Martin Vollmann "Theoretical developments on synchrotron searches for dark matter" (15+5)

**Collider**

- 14:30** Sushil Chauhan "Searches for DM with CMS" (20+5)  
**14:55** Sergio Gonzalez Fernandez "Searches for DM with ATLAS" (15+5)  
**15:15** Jack H. Lindon "Search for invisible decays of the Higgs boson and Dark Matter interpretation" (15+5)  
**15:35** Martina Laurenza "The Dark Sector at Belle II" (20+5)

**16:00 Poster Session**

**(Technical details will be shared soon. Please prepare a pdf file to be uploaded on the website.)**

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**Day 3: (December 4)**

**Indirect**

<b>09:00</b>	Rebecca Leane	“Exoplanets Sub-GeV DM”	(15+5)
<b>09:20</b>	Marco Chianese	“A Unique Multi-Messenger Signal of QCD Axion Dark Matter”	(15+5)
<b>09:40</b>	Manuela Vecchi	“DM with AMS”	(15+5)
<b>10:00</b>	Pedro de la Torre Luque	“Uncertainties in antiprotons searches of Dark Matter”	(12+3)
<b>10:15</b>	Peter Reimitz	“Hadronic footprint GeV DM”	(12+3)
<b>10:30</b>	C.Argüelles-Delgado	“Searching for Signatures of Dark Matter Using High-Energy Neutrinos”	(15+5)
<b>10:50</b>	Chiara Poiré	“Dark Matter searches with ANTARES and KM3net”	(12+3)
<b>11:05</b>	Ibrahim Safa	“DM with a Panopticon of Neutrino Detectors”	(12+3)

**Cosmo**

<b>11:30</b>	Joachim Kopp	“DM at cosmological phase transition”	(20+5)
<b>11:55</b>	Tim Tait	“DM Freeze-out Early confinement”	(20+5)
<b>12:20</b>	Farinaldo Queiroz	“Light DM, lithium and H0”	(15+5)
<b>12:40</b>	Andrzej Hryczuk	“Self interacting DM and H0 tension”	(15+5)
<b>13:00</b>	Nicolas Bernal	“Self Interacting DM from Primordial Black Holes”	(15+5)
<b>13:20</b>	Caner Unal	“PBH constraints from CMB and pulsar time arrays”	(15+5)
<b>13:40</b>	Bradley Kavanagh	“Detecting Dark Matter around Black Holes with Gravitational Waves”	(15+5)

**Direct**

<b>14:15</b>	Maria Benito	“Dark Matter in the Milky Way: distribution and uncertainties”	(15+5)
<b>14:35</b>	Mihael Petac	“Axisymmetric phase-space distribution for galactic DM: implications for direct searches”	(15+5)
<b>14:55</b>	Xavier Bertou	“The ANDES Deep Underground Laboratory”	(20+5)
<b>15:20</b>	Martin Makler	“Updates from the Coherent Neutrino-Nucleus Interaction Experiment - CONNIE”	(20+5)
<b>15:45</b>	Paul Terman	“The Lightly Ionizing Particle Search in the LUX Detector”	(15+5)

**Final remarks**