



# The 13th International Workshop on the Dark Side of the Universe

## Monday, 10 July 2017

### Talk Session - L104 (09:30 - 10:35)

-Conveners: Carlos Munoz

| time  | [id] title  | presenter       |
|-------|---|-----------------|
| 09:30 | [73] Welcome and practical information                                    | KADOTA, Kenji   |
| 09:35 | [0] Status of COSINE dark matter search experiment                        | LEE, Hyun Su    |
| 10:05 | [1] Linking direct detection and relic abundance in WIMP effective models | SCOPEL, Stefano |

### Talk Session: Talk Session - L104 (11:00 - 12:30)

-Conveners: Hyun Su Lee

| time  | [id] title  | presenter            |
|-------|---|----------------------|
| 11:00 | [3] Dark Matter searches at LHC                   | DE ROECK, Albert     |
| 11:30 | [2] Dark Sector Physics with Belle II             | MACQUEEN, Caitlin    |
| 12:00 | [4] First results of XENON1T Dark Matter detector | TUNNELL, Christopher |
| 12:15 | [5] The LUX-ZEPLIN dark matter search             | MANALAYSAY, Aaron    |

### Talk Session: Talk Session - L104 (14:00 - 15:45)

-Conveners: Seong Chan Park

| time  | [id] title  | presenter         |
|-------|---|-------------------|
| 14:00 | [6] Particle physics models for interacting DM-DR                             | KO, Pyungwon      |
| 14:30 | [7] Rare event searches with the LUX detector                                 | TVRZNIKOVA, Lucie |
| 14:45 | [8] Unitarisation of EFT Amplitudes for Dark Matter Searches at the LHC       | SCHMIDT, Michael  |
| 15:00 | [9] A Systematic Effective Operator Analysis of Semi-Annihilating Dark Matter | SPRAY, Andrew     |
| 15:15 | [10] Portal Connecting Dark Photons and Axions                                | KANETA, Kunio     |
| 15:30 | [11] Heavier and darker: spin-2 dark matter                                   | URBAN, Federico   |

### Talk Session: Talk Session - L104 (16:15 - 18:00)

-Conveners: Hyun Min Lee

| time  | [id] title  | presenter          |
|-------|---|--------------------|
| 16:15 | [12] Tiny flavor symmetry breaking neutrino masses and dark matter                            | TAKAYAMA, Fumihiro |
| 16:45 | [13] Hunting the dark Higgs   | DUERR, Michael     |
| 17:00 | [14] Recent direct detection and LHC data illuminating simple Higgs-portal dark-matter models | TANDEAN, Jusak     |
| 17:15 | [15] Asymmetric Dark Matter in Fluffy Standard Model  | OKUMURA, Kenichi   |

|       |   |                   |
|-------|---|-------------------|
| 17:30 | [16] Probing the first order electroweak phase transition in scalar extension models at future gravitational wave interferometers and future collider experiments | MATSUI, Toshinori |
| 17:45 | [17] Computational-Science-based Research on Dark Matter  | CHO, Kihyeon      |

## Tuesday, 11 July 2017

### Talk Session: Talk Session - L104 (09:00 - 10:30)

-Conveners: Sunghoon Jung

| time  | [id] title   | presenter       |
|-------|--|-----------------|
| 09:00 | [18] Dark Matter secret liaisons - Phenomenology of a dark U(1) sector with bound states | CIRELLI, Marco  |
| 09:30 | [72] Stable Sexaquark as Dark Matter   | FARRAR, Glennys |
| 10:00 | [20] New candidates for relic anti-neutrino capture experiments                          | LEE, Jeong-Yeon |
| 10:15 | [21] The SIMP species from dark symmetries   | LEE, Hyun Min   |

### Talk Session: Talk Session - L104 (11:00 - 12:30)

-Conveners: Fumihiro Takayama

| time  | [id] title  | presenter        |
|-------|---|------------------|
| 11:00 | [19] Light Dark Matter  | KADOTA, Kenji    |
| 11:30 | [23] Nonstandard interactions at long-baseline neutrino experiments | MARFATIA, Danny  |
| 12:00 | [24] Electroweak Kaluza-Klein Dark Matter                           | PARK, Seong Chan |
| 12:15 | [25] Probing extra dimension with dark energy                       | OH, Phillial     |

### Talk Session: Talk Session - L104 (14:00 - 15:45)

-Conveners: Chang Sub Shin

| time  | [id] title   | presenter                   |
|-------|--|-----------------------------|
| 14:00 | [26] Stochastic gravitational waves at aLIGO from a singlet extension of the SM                    | BALAZS, Csaba               |
| 14:30 | [27] Neutrino lines from dark matter   | GARCIA CELY, Camilo Alfredo |
| 14:45 | [28] Impact of the b to s ll anomalies on dark matter physics                                      | OMURA, Yuji                 |
| 15:00 | [29] Neutrinophilic 2HDM and Dark Matter   | BAEK, Seungwon              |
| 15:15 | [30] Model of radiative neutrino mass and dark matter with $SU(2)_1 \times SU(2)_2$ gauge symmetry | NOMURA, Takaaki             |
| 15:30 | [31] Hidden sector behind the CKM matrix   | OKAWA, Shohei               |

### Talk Session: Talk Session - L104 (16:15 - 18:00)

-Conveners: Natsumi Nagata

| time  | [id] title  | presenter           |
|-------|---|---------------------|
| 16:15 | [32] Late Kinetic Decoupling and Self-Interacting Dark Matter   | KERSTEN, Joern      |
| 16:45 | [34] Study of dark matter physics in non-universal gaugino mass scenario  | KAWAMURA, Junichiro |
| 17:00 | [35] Implications for the Vacuum Magnetic Birefringence Experiment from the Parity Violating Interactions between Fermionic Dark Matter and Extra U(1) Mediator | YAMASHITA, Kimiko   |
| 17:15 | [37] Light Wino dark matter at the LHC  | MUNIR, Shoab        |

|       |   |                |
|-------|---|----------------|
| 17:30 | [33] Effects of QCD bound states on dark matter relic abundance | LIEW, Seng Pei |
|-------|---|----------------|

# Wednesday, 12 July 2017

## Talk Session: Talk Session - L104 (09:00 - 10:30)

-Conveners: Joern Kersten

| time  | [id] title   | presenter           |
|-------|--|---------------------|
| 09:00 | [38] Status of Astrophysical Searches for Dark Matter                      | PROFUMO, Stefano    |
| 09:30 | [39] Status of LIGO and Virgo, Latest Observational Results, and Outlook   | CANNON, Kipp        |
| 10:00 | [40] 21cm line signal from minihalos as a probe of primordial fluctuations | SEKIGUCHI, Toyokazu |
| 10:15 | [41] Sudden kinetic decoupling of dark matter                              | KAMADA, Ayuki       |

## Talk Session: Talk Session - L104 (11:00 - 12:30)

-Conveners: Ki-Young Choi

| time  | [id] title   | presenter        |
|-------|--|------------------|
| 11:00 | [42] Lambda or not Lambda?   | SHAFIELOO, Arman |
| 11:30 | [43] Insights on "freeze-in" process   | MAMBRINI, Yann   |
| 12:00 | [44] High-resolution SZ imaging of clusters of galaxies with the NIKA2 camera at the IRAM 30-m telescope | MAYET, Frédéric  |
| 12:15 | [45] Cosmological information from higher order clustering   | SABIU, Cristiano |

# Thursday, 13 July 2017

## Talk Session: Talk Session - L104 (09:00 - 10:30)

-Conveners: Keith Olive

| time  | [id] title                                      | presenter                    |
|-------|---|------------------------------|
| 09:00 | [46] The Universe after G-inflation             | YOKOYAMA, Jun'ichi           |
| 09:30 | [47] Axion dark matter searches                 | SEMERTZIDIS, Yannis Kyriakos |
| 10:00 | [48] Inflationary solutions in Extra dimensions | IM, Sang Hui                 |
| 10:15 | [49] Poly-instanton axion inflation             | UEMURA, Shohei               |

## Talk Session: Talk Session - L104 (11:00 - 12:30)

-Conveners: Stefano Scopel

| time  | [id] title   | presenter       |
|-------|--|-----------------|
| 11:00 | [50] A new halo-independent approach and the DAMA unmodulated signal     | GONDOLO, Paolo  |
| 11:30 | [51] Light Axinos: Decay, Freeze-in Production & Lyman-alpha Constraints | BAE, Kyu Jung   |
| 12:00 | [52] Supersymmetric Super-GUTS   | EVANS, Jason    |
| 12:15 | [53] Two-pixel-hit searches for wino and higgsino                        | NAGATA, Natsumi |

## Talk Session: Talk Session - L104 (14:00 - 15:45)

-Conveners: Jason Evans

| time  | [id] title   | presenter       |
|-------|--|-----------------|
| 14:00 | [54] Cosmic-ray antiprotons and dark matter                        | ZHOU, Yu-Feng   |
| 14:30 | [56] LD2DM and the AMS-02 positron excess                          | RENTALA, Vikram |
| 14:45 | [57] Heavy Quark Flavored Scalar Dark Matter with Fermion Mediator | WU, Peiwen      |
| 15:00 | [58] Flavor origin of dark matter and neutrino mixing              | SIL, Arunansu   |
| 15:15 | [59] Constraining Axion-photon Coupling From the Light             | SUN, Sichun     |
| 15:30 | [64] Gravitational waves from phase transitions: analytic approach | JINNO, Ryusuke  |

## Talk Session: Talk Session - L104 (16:15 - 18:00)

-Conveners: Arman Shafieloo

| time  | [id] title  | presenter            |
|-------|---|----------------------|
| 16:15 | [60] New Aspects on the Apparent Dark Matter from Emergent Gravity          | ZHANG, Yun-Long      |
| 16:30 | [61] Constraining the early Universe with the large-scale structures        | L'HUILLIER, Benjamin |
| 16:45 | [62] Dark inflation   | ARTYMOWSKI, Michał   |
| 17:00 | [63] Supergravity Inflation in the Light of LHC constraints on SUSY spectra | MOHANTY, Subhendra   |
| 17:15 | [36] Constraint to dark energy along the PADE parameterization              | MALEKJANI, Mohammad  |

# Friday, 14 July 2017

## **Talk Session: Talk Session - L104 (09:00 - 10:00)**

-Conveners: Yu-Feng Zhou

| time  | [id] title   | presenter        |
|-------|--|------------------|
| 09:00 | [66] General Continuum Clockwork   | SHIN, Chang Sub  |
| 09:30 | [67] Examining the origin of dark matter mass at colliders                             | ZHANG, Mengchao  |
| 09:45 | [68] Two-loop Anomalous Dimensions for Four-Fermi Operators in Supersymmetric Theories | KUWAHARA, Takumi |

## **Talk Session: Talk Session - L104 (10:30 - 11:45)**

-Conveners: Pyungwon Ko

| time  | [id] title   | presenter       |
|-------|--|-----------------|
| 10:30 | [69] EeV Supersymmetric Dark Matter  | OLIVE, Keith    |
| 11:00 | [70] DSU 2018  | MAYET, Frédéric |
| 11:15 | [71] On a reinterpretation of the Higgs field in supersymmetry and a proposal for new quarks | MUNOZ, Carlos   |