

14th December (Panasonic Hall, Yukawa Memorial building, YITP, Kyoto U. )

9:00-9:45 Reception

9:45-9:50 Announcement

9:50-9:55 Opening address: Misao Sasaki (Director, YITP, Kyoto U.)

[Morning session 1] Chair: Misao Sasaki

10:00-10:45 (40+5min) Francois Bouchet (Planck)  
Cosmology with the Planck satellite: from quantum foam to the cosmic web

10:45-11:30 (40+5min) Will Percival (BOSS, eBOSS, DESI, Euclid)  
Cosmological Measurements from Galaxy Clustering

11:30-13:00 (1hour 30min) Lunch

[Afternoon session 1] Chair: Misao Sasaki

13:00-13:35 (30+5min) Andrei Frolov  
Isotropy and statistics of the CMB with Planck

13:35-14:05 (25+5min) Daisuke Yamauchi  
Cosmology with the Square Kilometre Array by SKA-Japan

14:05-14:20 (15min) Coffee break

[Afternoon session 2] Chair: Shinji Mukohyama

14:20-15:05 (40+5min) Mark Trodden  
Theoretical Aspects of Cosmic Acceleration

15:05-15:20 (12+3min) Kazuharu Bamba  
Inflationary universe in a conformally-invariant two-scalar-field theory with an  $R^2$  term

15:20-16:40 (17+3min) Alvaro de la Cruz-Dombriz  
Limitations of cosmography in extended theories of gravity

15:40-16:05 (20+5min) Alessandro Codello  
Covariant Effective Field Theory of Gravity

16:05-16:25 (20min) Coffee break

[Afternoon session 3] Chair: Keith Olive

16:25-17:00 (30+5min) Qaisar Shafi  
Primordial Monopoles, Proton Decay and GUT Inflation

17:00-17:20 (17+3min) Tatsuo Kobayashi  
New forms of potential for string axion inflation

17:20-17:40 (17+3min) Kenji Kadota

Dark Side of the Universe 2015 Scientific Program (Last update on 12/03)

CMB probes on generally correlated axion isocurvature perturbations  
17:40-18:55 (12+3min) Gaetano Lambiase  
f(R) cosmology and dark matter  
17:55-18:10 (12+3min) Digesh Raut  
Running Non-Minimal Inflation with Stabilized Inflaton Potential  
18:10-18:25 (12+3min) Kohei Kamada  
Standard Model Higgs in the Inflationary Universe

## 15th December (Panasonic Hall, Yukawa Memorial building, YITP, Kyoto U. )

9:20-9:30 Announcement

[Morning session 1] Chair: Atsushi Taruya

9:30-10:15 (40+5min) Surhud More  
The structure and large scale distribution of dark matter halos: Overview and new horizons

10:15-11:00 (40+5min) Naoki Yoshida  
Simulations of the formation of large-scale structure

11:00-11:15 (15min) Coffee break

[Morning session 2] Chair: Mordehai Milgrom

11:15-12:00 (40+5min) Justin Khoury  
Dark Matter Superfluidity

12:00-13:20 (1hour 20min) Lunch

[Afternoon session 1] Chair: Aldo Morselli

13:20-14:05(40+5min) Takaya Ohashi (Suzaku, Astro-H)  
X-ray study of the dark side of the universe

14:05-14:50 (40+5min) Kunihito Ioka  
Bright Side of the High Energy Universe

14:50-15:10 (17+3min) Carlotta Pittori (Astrogram)  
Dark matter signatures in a mostly unexplored gamma-ray energy window

15:10-15:25 (15min) Coffee break

[Afternoon session 2] Chair: Junji Hisano

15:25-16:10 (40+5min) Shigeki Matsumoto  
Towards testing the WIMP paradigm

16:10-16:40(25+5min) Yu-Feng Zhou  
Implications of the AMS-02 data for dark matter and cosmic-ray propagation

16:40-17:00 (17+3min) Ki-Young Choi  
Small scale isocurvature perturbation of WIMP dark matter  
17:00-17:15 (12+3min) Yue-Lin Suming Tsai  
Searching for Singlet- Doublet Mixing Majorana DM

[Poster session] 17:15-19:00 (1hour 25min)

## 16th December (Panasonic Hall, Yukawa Memorial building, YITP, Kyoto U. )

9:20-9:30 Announcement

[Morning session 1] Chair: Junji Hisano

9:30-10:15 (40+5min) Masahiro Morii (LHC-ATLAS)  
Dark Matter Searches at the LHC

10:15-10:30 (15min) Coffee break

[Morning session 2] Chair: Carlos Munoz

10:30-11:15 (40+5min) Howard Baer  
SUSY dark matter, axions, LHC and ILC

11:15-11:45 (25+5min) Leszek Roszkowski  
SUSY dark matter: lessons from and for the early Universe

11:45-12:20 (30+5min) Csaba Balazs  
Naturalness, supersymmetry and dark matter

12:20-12:30 The next year DSU and workshop photo

12:20-18:00 Lunch and Excursion

18:00-20:00 Dinner (at Sodoh Higashiyama)

## 17th December (Panasonic Hall, Yukawa Memorial building, YITP, Kyoto U. )

9:20-9:30 Announcement

[Morning session 1] Chair: Masahiro Morii

9:30-10:15 (40+5min) Paolo Gondolo  
Halo-Indeendent Analysis of Direct Dark Matter Experiments

10:15-10:40 (20+5min) Tsuguo Aramaki (CDMS)

Recent results from the second CDMSlite run and overview of the SuperCDMS SNOLAB project

10:40-11:05 (20+5min) Shigetaka Moriyama (XMASS)  
Direct dark matter searches with XMASS

11:05-11:50 (40+5min) Sara Diglio (Xenon1T)  
XENON1T: the start of a new era in the search for Dark Matter

11:50-13:00 (1hour 10min) Lunch

[Afternoon session 1] Chair: Pyungwon Ko

13:00-13:45(40+5min) Aldo Morselli  
Current and future gamma-ray observations from KeV to TeV

13:45-14:20 (30+5min) Carlos Munoz  
Searching for SUSY and decaying gravitino dark matter at the LHC and Fermi-LAT with the  $\mu\nu$ SJM

14:20-14:35 (15min) Coffee break

[Afternoon session 2] Chair: Osamu Seto

14:35-15:10 (30+5min) Keith Olive  
Supersymmetric Dark Matter or Not

15:10-15:30 (17+3min) Natsumi Nagata  
Probing gaugino coannihilation with displaced vertex searches

15:30-15:45 (12+3min) Feng Luo  
Gluino Coannihilation

15:45-16:05 (20min) Coffee break

[Afternoon session 3] Chair: Ken-ichi Izawa

16:05-16:50 (40+5min) Kiwoon Choi  
Hierarchical axion scales for natural inflation and relaxion

16:50-17:05 (12+3min) Sang Hui Im  
Realizing the relaxion with multiple axions and its UV completion with high scale supersymmetry

17:05-17:20 (15min) Coffee break

[Afternoon session 4] Chair: Csaba Balazs

17:20-17:50 (25+5min) Yann Mambrini  
Building phenomenological models of Dark Matter

17:50-18:05 (12+3min) Takaaki Nomura

SU(2)<sub>L</sub> × SU(2)<sub>R</sub> minimal dark matter with simplified Higgs sector  
18:05-18:20 (12+3min) Kaori Fuyuto  
Aspects of CP violation in electroweak baryogenesis  
18:20-18:35 (12+3min) Masato Yamanaka  
Leptogenesis in E<sub>6</sub> × U(1)<sub>A</sub> SUSY GUT model

## 18th December (Panasonic Hall, Yukawa Memorial building, YITP, Kyoto U. )

9:20-9:30 Announcement

[Morning session 1] Chair: Takehiko Asaka

9:30-10:15 (40+5min) Shigeru Yoshida (IceCube)  
Exploring the origin of UHECRs with very-high energy neutrinos  
-- The IceCube 7year long Ultra-high energy neutrino searches --

10:15-10:35 (17+3min) Christoph Toennis (ANTARES)  
The indirect search for dark matter with the ANTARES neutrino telescope

10:35-10:55 (17+3min) Joe Sato  
MeV scale leptonic force for cosmic neutrino spectrum and muon anomalous magnetic moment

10:55-11:15 (17+3min) Arman Esmaili Taklimi  
Interpreting the IceCube events by decaying dark matter: hints and constraints

11:15-11:30 (15min)

[Morning session 2] Chair: Takehiko Asaka

11:30-12:15 (40+5min) Joern Kersten  
Not So Weakly Interacting Dark Matter Bonding with Sterile Neutrinos

12:15-12:35 (17+3min) Takashi Toma  
Self-interacting dark matter and monochromatic lines

12:35-14:00 (1hour 25min) Lunch

[Afternoon session 1] Chair: Qaisar Shafi

14:00-14:35 (30+5min) Pyungwon Ko  
EW scale DM models with dark gauge symmetries

14:35-15:00 (20+5min) Lorenzo Calibbi  
The Flavour Portal to Dark Matter

15:00-15:20 (17+3min) Seungwon Baek  
Dark matter and muon (g-2) in an extended Ma model

15:20-15:40 (17+3min) Yuji Omura  
Flavor violating Z' from SO(10) SUSY GUT in High-Scale SUSY

15:40-16:00 (20min) Coffee break

[Afternoon session 2] Chair: Fumihiro Takayama

16:00-16:20(17+3min) Kentarou Mawatari

Dark matter study in the FeynRules/MadGraph5\_aMC@NLO framework

16:20-16:35 (12+3min) Seng Pei Liew

Benchmark models for Dark Matter searches at the LHC

16:35-16:55 (17+3min) Chaehyun Yu

Mono-quarkonium production for dark matter search

16:55-17:30 (30+5min) Mihoko Nojiri

Physics of Dark Matter and Universe in LHC era

17:30-17:40 Closing: Fumihiro Takayama