

Ecole Internationale Daniel Chalonge



Chalonge Meudon Workshop 2012

**WARM DARK MATTER AND GALAXY FORMATION
IN AGREEMENT WITH OBSERVATIONS**

**Observatoire de Paris, CIAS Château de Meudon,
Meudon campus 6, 7 and 8 June 2012**



**All Sessions of the Workshop take place in the historic
Castle building (CIAS, Château de Meudon)**

**Observatoire de Meudon pedestrians ENTRY : 5 Place Jules Janssen
Entry for cars (also for pedestrians) : 11 Av Marcelin Berthelot, Meudon**

Sessions start at the indicated times sharp

1 HOUR = 45 minutes lecture + 15 minutes discussions

WEDNESDAY 6 JUNE MORNING

8.00 - 9.30: URANIA HALL (*in the Château building*) REGISTRATION, badges, lunch tickets for the Observatoire Restaurant, copies of the full Time Table with Lectures and Lecturers.

« SALLE DE CONFERENCES DU CHATEAU »

9.45 – 10:00 Welcome Address

10.00 – 11.00 Peter BIERMANN, Chalonge Medal (MPI-Bonn, Germany & Univ of Alabama, Tuscaloosa, USA) *Warm dark matter overview: cosmological and astrophysical signatures.*

11.00 - 11.30 COFFEE-TEA-MATE BREAK
at URANIA HALL, *in Château building*

11.30 - 12.30 Héctor J. DE VEGA (CNRS LPTHE Univ Pierre&Marie Curie, Paris, France) *Warm Dark Matter from theory and galaxy observations.*

12.30 – 14.00 LUNCH *at the Observatoire Restaurant (Meudon campus around the lac near the Château building)*

WEDNESDAY 6 JUNE AFTERNOON

« SALLE DE CONFERENCES DU CHATEAU »

14.00 - 15.00 **Igor D. KARACHENTSEV** (SAO-Special Astrophysical Observatory, Nizhnii Arkhyz, Russia)
Cosmography of the Local Universe

15.00 – 16.00 **Ayuki KAMADA** (IPMU Inst. Physics & Mathematics of the Universe, Univ of Tokyo, Japan)
Structure Formation in Warm Dark Matter Models.

16.00 – 16.30 **COFFEE-TEA-MATE BREAK at URANIA HALL, in Château building and CIAS aside Urania Hall**

16.30 – 17.30 **Wei LIAO** (Inst.Modern Physics, East China Univ.Science & Technology, Shanghai, P. R. China) *On the detection of keV scale neutrino Warm Dark Matter in Beta decay experiments.*

17.30 – 18.30 **Subinoy DAS** (Inst. für Theoretische Teilchenphysik und Kosmologie RWTH, Aachen Univ., Aachen, Germany) *Cosmological Limits on Hidden Warm Dark Matter*

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THURSDAY 7 JUNE MORNING

« SALLE DE CONFERENCES DU CHATEAU »

10.00 – 11.00 **Manolis PAPASTERGIS** (Centre Radiophysics. & Space Research, Cornell Univ, Ithaca NY, USA)
The velocity width function of galaxies from the ALFALFA survey: Dark matter implications

11.00 – 11.30 **COFFEE-TEA-MATE BREAK at URANIA HALL** *in Château building and CIAS aside Urania Hall*

11.30 - 12.30 **Nicola C. AMORISCO** (Institute of Astronomy, Univ of Cambridge, Cambridge, UK) *Dark matter cores and cusps: the case of multiple stellar populations in dwarf spheroidals.*

12.30 – 14.00 **LUNCH** *at the Observatoire Restaurant (Meudon campus around the lac, near the Château building)*

THURSDAY 7 JUNE AFTERNOON

« SALLE DE CONFERENCES DU CHATEAU »

14.00 – 15.00 Elena FERRI (INFN Milano Bicocca, Italy)
The MARE experiment to measure the mass of light (active) and keV (sterile) neutrinos

15.00 – 16.00 Jorge PENARRUBIA (Instituto Astrofísica Andalucía – IAA-CSIC, Granada, Spain) *Measuring the Dark Mass Profiles of Dwarf Spheroidal Galaxies.*

16.00 - 16.30 COFFEE-TEA-MATE BREAK at URANIA HALL *in Château building and CIAS aside Urania Hall*

16.30 - 17.30 Marc LOVELL (Inst. Comput. Cosmology, Univ Durham, Durham, UK) *Numerical simulations of WDM halos*

17.30 - 18.30 Jesús ZAVALA (Univ Waterloo, Dept Phys & Astr, Ontario, Canada) *The velocity function of galaxies in the local environment from Cold and Warm Dark Matter simulations*

FRIDAY 8 JUNE MORNING

« SALLE DE CONFERENCES DU CHATEAU »

10.00 – 11.00 **Marco LOMBARDI** (University of Milano, Dept Physics, Milan, Italy) *Star Formation Rates in Molecular Clouds and the Nature of the Extragalactic Scaling Relations*

11.00 - 11.30 **COFFEE-TEA-MATE BREAK** at **URANIA HALL** *in Château building and CIAS aside Urania Hall*

PHOTO OF THE GROUP
(in the Urania Hall facade)

11.30 - 12.30 **He ZHANG** (Max-Planck-Inst. für Kernphysik, Heidelberg, Germany) *Sterile Neutrinos for Warm Dark Matter in Flavor Symmetry Models*

12.30 - 14.00 **LUNCH BREAK** *at the Observatoire Restaurant (Meudon campus around the lac, near the Château building)*

FRIDAY 8 JUNE AFTERNOON
« SALLE DE CONFERENCES DU CHATEAU »

14.00 - 15.00 **Patrick VALAGEAS** (Inst. de Phys. Théorique, Orme de Merisiers, CEA-Saclay, Gif-sur-Yvette, France) *Perturbation approaches and halo models for large-scale structures and related issues*

15.00 - 16.00 **Pier-Stefano CORASANITI** (CNRS LUTH Observatoire de Paris, Meudon, France) *Excursion Set Theory*

16.00 - 16.30 **COFFEE-TEA-MATE BREAK at URANIA HALL** *in Château building and CIAS aside Urania Hall*

16.30 - 17.30 **Casey WATSON** (Millikin Univ, Dept Physics & Astron., Decatur, Illinois, USA) *Using X-ray Observations to Constrain Sterile Neutrino Warm Dark Matter.*

17.30 - 18.30 **Norma G. SANCHEZ** (CNRS LERMA Observatoire de Paris, France) *Warm Dark Matter Galaxy Formation in Agreement with Observations*

18.30 - 20.00 **APERITIF/COCKTAIL at URANIA HALL** *in Château building for all participants and accompanying persons.*

**All Lecturers and participants are expected to remain
untill the end of the Workshop**

END OF THE WORKSHOP