

Ecole Internationale Daniel Chalonge - Héctor de Vega



Chalonge de Vega Meudon Workshop 2016

Warm Dark Matter Astrophysics in agreement with observations and keV Sterile neutrinos

Observatoire de Paris, CIAS Château de Meudon, Meudon campus, 15, 16 and 17 JUNE 2016



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

**Observatoire de Meudon ENTRY: 5 Place Jules Janssen, 92195 Meudon.
Entry for cars: 11 Avenue Marcelin Berthelot, 92195 Meudon**

Sessions start at the indicated times sharp

1 HOUR = 45 minutes lecture + 15 minutes discussions

WEDNESDAY 15 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 (MPI-Bonn, Germany & Univ of Alabama, Tuscaloosa, USA)
Warm Dark Matter, Supermassive black holes and black hole mergers

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

11.30 – 12.30 Work with Héctor J. DE VEGA on *Warm Dark Matter* **Norma G. SANCHEZ** (CNRS LERMA Observatoire de Paris, Paris, France)

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

WEDNESDAY 15 JUNE AFTERNOON

« SALLE DE CONFERENCES DU CHATEAU »

14.00 – 15.00 **Sinziana PADUROIU** (Observatoire de Geneve, Switzerland)

Warm Dark Matter Cosmology: Numerical Simulations on Structure Formation

15.00 – 16.00 **Thierry LASSERRE** (CEA, IRFU-Saclay, France)

A Status Report on Sterile Neutrino experiments and the keV case

16.00 – 17.00 **COFFEE-TEA BREAK at URANIA HALL,**
in Château building and CIAS aside Urania Hall

17.00 – 18.00 **Anton HUBER** (KIT, Karlsruhe Institute of Technology, Karlsruhe, Germany)

The Status of the keV-scale sterile neutrino search with KATRIN

THURSDAY 16 JUNE MORNING

« SALLE DE CONFERENCES DU CHATEAU »

10.00 – 11.00 **Eloisa MENEGONI** (University of Roma I, Rome, Italy)

Constraints on fundamental physics from CMB data and galaxy clustering

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

11.30 – 12.30 **Daniel MAIER** (Service d'Astrophysique CEA-Saclay, Gif-sur-Yvette, FRANCE)

X-Ray Astronomy and the search for keV sterile neutrino signatures

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

THURSDAY 16 JUNE AFTERNOON

« SALLE DE CONFERENCES DU CHATEAU »

14.00 – 15.00 Nicola **MENCI** (INAF, Osservatorio di Roma, Roma, Italy)

Warm Dark Matter Astrophysics: Galaxy and Star formation and keV sterile neutrino mass constraints

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

Non-linear small scale structure formation in non-standard cosmologies

16.00 – 17.00 **COFFEE-TEA BREAK at URANIA HALL**
in Château building and CIAS aside Urania Hall

17.00 – 18.00 Loredana **GASTALDO** (Kirchhoff Institute for Physics KIP, Univ Heidelberg, Germany)

The Status of the ECHO experiment for the investigation of keV sterile neutrinos.

18.00 – 19.00 Isabella P. **CARUCCI** (SISSA-Astrophysics, Trieste, Italy) *Exploiting the 21cm power spectrum: forecasts for SKA on the Warm Dark Matter*

FRIDAY 17 JUNE MORNING

« SALLE DE CONFERENCES DU CHATEAU »

10.00 – 11.00 Marco LOMBARDI (Dept. of Physics,
University of Milano, Italy)
Dark Matter Searches with Gravitational Lensing

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

PHOTO OF THE GROUP
(in the Urania Hall facade)

11.30 – 12.30 Paolo SALUCCI (SISSA-Astrophysics,
Trieste, Italy)
*The observed structural properties of Galaxies and cored
density profiles lead to Warm Dark Matter*

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

FRIDAY 17 JUNE AFTERNOON

« SALLE DE CONFERENCES DU CHATEAU »

14.00 – 15.00 Norma G. SANCHEZ (CNRS LERMA Observatoire de Paris, Paris, France) *Warm Dark Matter*

15.00 – 16.00 All participants: *General Discussion on the present and future of the scientific research on Dark Matter and Galaxies*

16.00 – 16.30 **The Héctor J. de Vega Medal**

16.30 – 17.00 **COFFEE-TEA- BREAK at URANIA HALL in Château building and CIAS aside Urania Hall**

17.00 – 18.00 Visit inside the Chateau building

18.00 – 20.00 **APERITIF/COCKTAIL at URANIA HALL in Château building for all participants and accompanying persons.**

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

END OF THE WORKSHOP