DMUK Meeting - UCL

Report of Contributions

https://indico.fnal.gov/e/13260

Contribution ID: **5** Type: **Talk**

Welcome

Wednesday, 18 January 2017 09:00 (10 minutes)

Primary author: Dr GHAG, Chamkaur (UCL)

Presenter: Dr GHAG, Chamkaur (UCL)

Contribution ID: **6** Type: **not specified**

Dark Matter Heating

Wednesday, 18 January 2017 09:10 (35 minutes)

Presenter: Prof. JUSTIN, Read (University of Surrey)

Contribution ID: **7** Type: **Talk**

Dark Matter searches at the LHC

Wednesday, 18 January 2017 09:45 (35 minutes)

Presenter: Dr MALIK, Sarah (Imperial College London)

Contribution ID: **8** Type: **not specified**

Axions and non-WIMP searches

Wednesday, 18 January 2017 10:20 (35 minutes)

Presenter: Dr DAW, Edward (The University of Sheffield)

Contribution ID: **9** Type: **not specified**

WIMP Direct Detection

Wednesday, 18 January 2017 11:25 (35 minutes)

Presenter: Dr KABOTH, Asher (RHUL)

Contribution ID: **10** Type: **Talk**

Results from the LUX experiment

Wednesday, 18 January 2017 12:00 (20 minutes)

Presenter: Dr SHAW, Sally (University College London)

Contribution ID: **11** Type: **Talk**

The SABRE dark matter search experiment

Wednesday, 18 January 2017 16:20 (20 minutes)

Presenter: Dr FROBORG, Francis (Imperial College London)

Contribution ID: **12** Type: **Talk**

Indirect dark matter searches and CTA

Wednesday, 18 January 2017 15:40 (20 minutes)

Presenter: Dr BROWN, Anthony (Durham University)

Contribution ID: **13** Type: **Talk**

Direct Detection of Nuclear Dark Matter Using Tonne-Scale Experiments

Wednesday, 18 January 2017 14:00 (20 minutes)

Summary

Nuclear dark matter models propose a possible composite form of dark matter, dark matter nuclei, which are analogues to Standard Model nuclei. We present possible nuclear dark matter direct detection signals in the DEAP-3600 and XENON1T experiments for a particular class of nuclear dark matter. The number of events required to distinguish between this case and a standard point-like WIMP state is presented for each experiment. We find that, in the most favourable regions of the parameter space, it is possible to distinguish nuclear dark matter from WIMPs at the 3 \sigma level using both experiments in combination, while at best a 2 \sigma distinction is possible individually.

Presenter: Mr BUTCHER, Alistair (Royal Holloway University of London)

Contribution ID: **14** Type: **Talk**

Directional dark matter searches with the DRIFT and CYGNUS-TPC experiments

Wednesday, 18 January 2017 14:20 (20 minutes)

Presenter: Mr SCARFF, Andrew (University of Sheffield)

Contribution ID: **15** Type: **Talk**

The DEAP-3600 experiment at SNOLab

Wednesday, 18 January 2017 12:20 (20 minutes)

Presenter: Mr LA ZIA, Franco (Royal Holloway University of London)

Contribution ID: **16** Type: **Talk**

Low-background radio-assay capability in the UK

Wednesday, 18 January 2017 12:40 (20 minutes)

Presenter: Dr SCOVELL, Paul (University of Oxford)

Contribution ID: **17** Type: **Talk**

The LZ experimental hardware systems

Wednesday, 18 January 2017 14:40 (20 minutes)

Presenter: Dr LOPEZ PAREDES, Brais (Imperial College London)

Contribution ID: **18** Type: **Talk**

Software development for the LZ experiment

Wednesday, 18 January 2017 15:20 (20 minutes)

Presenter: Dr DOBSON, James (University College London)

Contribution ID: **19** Type: **Talk**

Directional detectors with polarised targets

Wednesday, 18 January 2017 16:00 (20 minutes)

Presenter: Mr FRANARIN, Tarso (King's College London)