

ECT* Workshop on “Electro-Weak Probes: from Low-Energy Nuclear Physics to Astrophysics”, June 25-29 2012

PROGRAM

Monday June 25 2012

Morning session - chairing Sonia Bacca

- 9:30 - 9:45 Achim Richter Welcome
9:45 - 10:30 Nir Barnea Electro-weak probes for low-energy nuclear physics
10:30 - 11:00 **Coffee Break**
11:00 - 11:45 Michael Distler Few-body program at MAMI
11:45 - 12:30 Joachim Enders Probing nuclear structure and nuclear astrophysics with electrons and photons at the S-DALINAC

12:30 - 14:00 **Lunch Break**

Afternoon session - chairing Winfried Leidemann

- 14:00 - 14:45 Tatsushi Shima Experimental study of photonuclear reactions of astrophysical interests with laser-backscattered gamma-rays
14:45 - 15:30 Wataru Horiuchi Ab-initio study of electro-weak responses in light nuclei
15:30 - 16:00 **Coffee Break**
16:00 - 16:45 Victor Zamfir Nuclear Photonics at Extreme Light Infrastructure-Nuclear Physics

Tuesday June 26 2012

Morning session - chairing Doron Gazit

- 9:00 - 9:45 Stefan Koelling Chiral Effective Field Theory for electromagnetic currents
9:45 - 10:30 Saori Pastore Electromagnetic moments and transitions in $A \leq 9$ nuclei including two-body EFT currents
10:30 - 11:00 **Coffee Break**
11:00 - 11:45 Winfried Leidemann Ab-initio calculations of electromagnetic resonances with the LIT method
11:45 - 12:30 Duncan Middleton The total photoabsorption cross section of Lithium isotopes below pion threshold

12:30 - 14:00 **Lunch Break**

Afternoon session - chairing Grabmayr

- 14:00 - 14:45 Jerry Feldman First Look at Compton Scattering on Lithium
14:45 - 15:30 Discussion Electromagnetic probes theory/experiment
led by Giuseppina Orlandini and Peter Grabmayr
15:30 - 16:00 **Coffee Break**

Wednesday June 27 2012

Morning session - chairing Joachim Enders

- 9:00 - 9:45 Alessandra Guglielmetti LUNA: the experimental status of the art
9:45 - 10:30 Pierre Descouvemont Exotic beta decay of ^{11}Li
10:30 - 11:00 **Coffee Break**
11:00 - 11:45 Barry Davids Nuclear astrophysics at TRIUMF
11:45 - 12:30 Tae-Sun Park Neutrino Emissivity through the modified URCA processes
12:30 - 14:00 **Lunch Break**

Afternoon session - chairing Nir Barnea

- 14:00 - 14:45 Carlotta Giusti Electro-weak probes on nuclei: relativistic models for quasi elastic scattering
14:45 - 15:30 Michael Hass Beta-neutrino correlation measurements for ^6He and other nuclides using an electrostatic ion trap
15:30 - 16:00 **Coffee Break**
19:00 - **Conference Dinner**

Thursday June 28 2012

Morning session - chairing Erich Ormand

- 9:00 - 9:45 Petr Vogel Physics beyond the Standard Model, nuclear structure, and lepton number conservation
- 9:45 - 10:30 Peter Grabmayr Double-beta decay
- 10:30 - 11:00 **Coffee Break**
- 11:00 - 11:45 Javier Menendez Nuclear aspects of neutrinoless double-beta decay
- 11:45 - 12:30 Jason Holt Structure and electro-weak transitions of medium mass nuclei
- 12:30 - 14:00 **Lunch Break**
- Afternoon session - chairing Petr Vogel*
- 14:00 - 14:45 Emil Truhlik Capture rates for muon capture in deuterium within the chiral EFT
- 14:45 - 15:30 Discussion Weak-interactions and astrophysics
led by Petr Vogel and Michael Hass
- 15:30 - 16:00 **Coffee Break**

Friday June 29 2012

Morning session - chairing Sofia Quaglioni

- 9:00 - 9:45 Vladimir Gudkov Time-reversal violation in heavy nuclei and in few-body systems
- 9:45 - 10:30 Lucas Platter Electromagnetic Properties of Halo Nuclei
- 10:30 - 11:00 **Coffee Break**
- 11:00 - 11:45 Erich Ormand P-shell nuclei from ab-initio methods
- 11:45 - 12:00 Organizers Closing remarks
- 12:00 - 14:00 **Lunch Break and Departure**