**Reflections on the atomic nucleus Liverpool 28-30 July 2015**

| Tuesday 28 July | Wednesday 29 July | Thursday 30 July |
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| **09:30 Opening (Maria Borge)**<br>Peter Butler *Welcome (5')*<br>Witek Nazarewicz **"Nuclear Structure Theory: today and tomorrow"** *(25'+5')*<br><br>**10:05 Shell structure via heavy nuclei I (Maria Borge)**<br>Teng Lek Khoo **"Impact of superheavy element research on nuclear theory"** *(20'+5')* | **09:15 Nuclear astrophysics (Mats Lindroos)**<br>Ani Aprahamian **"Can we use nuclear structure to constrain the sites of the r-process?"** *(20'+5')*<br>Moshe Gai **"The Triangular D3h Symmetry of 12C"** *(20'+5')*<br>Phil Woods **"If you like it you should have put a ring on it"** *(20'+5')* | **09:15 Aspects of nuclear collectivity II (Doug Cline)**<br>Marcus Scheck **"Measurement of B(E3; 0 → 3⁻) strength in strongly octupole correlated nuclei near $^{224}$Ra"** *(20'+5')*<br>Luis Robledo **"Octupole correlations beyond the mean field"** *(20'+5')*<br>Taka Otsuka **"Dual quantum liquid picture of nuclei and its implication to reflection asymmetry"** *(20'+5')* |
| **10:30 Break, Registration** | **10:30 Break, Industrial exhibition** | **10:30 Break** |
| **11:15 Shell structure via heavy nuclei II (Paul Greenlees)**<br>Michael Bender **"The shell structure and stability of super-heavy nuclei"** *(20'+5')*<br>Rodi Herzberg **"Current challenges in superheavy element research"** *(20'+5')*<br>Rauno Julin **"In-beam studies of the structure of exotic nuclei"** *(20'+5)'* | **11:15 Aspects of nuclear collectivity I (Sven Åberg)**<br>Piet Van Duppen **"Coexisting quadrupole shapes in heavy exotic nuclei"** *(20'+5')*<br>Mark Riley **"Spin 60 and beyond: Exotic behavior at the limits of angular momentum"** *(20'+5')*<br>John Sharpey-Schafer **"Myths of Collective Structures in Atomic Nuclei"** *(20'+5')* | **11:00 New experimental probes II (Angela Bracco)**<br>Mark Huyse **"Producing radioactive ion beams through the ISOL method: advances, challenges and opportunities"** *(20'+5')*<br>Fredrik Wenander **"TSR project at ISOLDE"** *(20'+5')*<br>Yorick Blumenfeld **"Radioactive Beam Facilities for Tomorrow"** *(20'+5')*<br><br>**Summary (Paul Nolan)**<br>John Simpson *(20')* |
| **12:30 Lunch, Industrial exhibition** | **12:30 Lunch, Industrial exhibition** | **12:35 Lunch** |
| **14:00 New experimental probes I (Robert Page)**<br>Janne Pakarinen **"Developments in in-beam conversion electron spectroscopy"** *(20'+5')*<br>James Cocks **"Recent developments in detection technology for scientific research applications"** *(20'+5')*<br>Dimiter Balabanski **"Nuclear Physics Experiments with High-Power Lasers and Brilliant Gamma Beams at the ELI-NP Facility"** *(20'+5')* | **14:00 New vistas of nuclear structure (Rafał Broda)**<br>Bogdan Fornal **"Exploring yrast structures in neutron-rich nuclei with deep-inelastic collisions"** *(20'+5')*<br>Jacek Dobaczewski **"New developments in nuclear DFT"** *(20'+5')*<br>Klaus Blaum **"Precision Measurements of Nuclear Ground-state Properties for Nuclear Structure, Astrophysics and Fundamental Studies"** *(20'+5')* | |
| **15:15 Break, Industrial exhibition** | **15:15 Break, Conference photo** | |
| **16:00 Shapes & strengths (Sunniva Siem)**<br>Magne Guttormsen **"Thermodynamic and electromagnetic properties of nuclei"** *(20'+5')*<br>Silvia Leoni **"Couplings between particle and phonons around neutron-rich doubly-magic nuclei"** *(20'+5')*<br>Krzysztof Rykaczewski **"Beta-strength, decay heat and anti-neutrino spectra from Total Absorption Spectroscopy"** *(20'+5')* | **16:00 Nuclear structure & fundamental physics (Lorenz Willmann)**<br>Juha Äystö **"Nuclear physics with ion traps"** *(20'+5')*<br>Sean Freeman **"Constraining the Neutrinoless Double Beta Decay Matrix Elements using Transfer Reactions"** *(20'+5')*<br>Tim Chupp **"Probing beyond-'Standard-'Model physics at low energy"** *(20'+5')* | |
| **18:00 Reception at Victoria Gallery and Museum**<br>***Sponsored by Canberra UK Ltd*** | **19:00 Reception and banquet at Maritime Museum** | |