

Nuclear Structure at the Extremes Programme

THURSDAY 8th MAY 2008	
09:00 – 09:30	Coffee and registration
Session I	Chair: Bob Chapman
09:30 – 09:40	Welcome from Professor Seamus McDaid (Principal and Vice Chancellor of the University of the West of Scotland)
09:40 – 10:10	David Dean (Oak Ridge National Laboratory) <i>Nuclear coupled-cluster theory</i>
10:10 – 10:40	Achim Schwenk (TRIUMF) <i>Low-momentum interactions for nuclear structure</i>
10:40 – 11:10	Coffee and tea break
Session II	Chair: Ron Johnson
11:10 – 11:40	Craig McNeile (University of Glasgow) <i>Hadron spectroscopy from lattice QCD</i>
11:40 – 12:10	Thomas Papenbrock (University of Tennessee) <i>Random matrices and chaos in nuclear spectra</i>
12:10 – 12:40	Marek Płoszajczak (GANIL) <i>Shell model for weakly-bound/unbound nuclear states</i>
12:40 – 13:10	Jan Jolie (University of Cologne) <i>Quantum phase transitions in atomic nuclei</i>
13:10 – 14:10	Lunch
Session III	Chair: David Ireland
14:10 – 14:40	Daniel Watts (University of Edinburgh) <i>Nuclear structure from pion photoproduction</i>
14:40 – 15:10	Guenther Rosner (University of Glasgow) <i>Hadron structure and spectroscopy at FAIR</i>
15:10 – 16:10	Contributed talks [Chaired by Garry Tungate]
16:10 – 16:40	Coffee and tea break
Session IV	Chair: Rolf-Dietmar Herzberg
16:40 – 17:10	Takaharu Otsuka (University of Tokyo) <i>Structure of exotic nuclei and the nuclear force</i>
17:10 – 17:40	Kim Lister (Argonne National Laboratory) <i>Tests of ab-initio shell models of light nuclei through precise DSAM measurements: The special case of ^{10}Be</i>
17:40 – 17:50	Break
Public Lecture	Chair: Seamus McDaid
17:50 – 18:50	Akito Arima (Japan Science Foundation) <i>Why do we need international collaboration in science?</i>
19:00	Whisky tasting event and buffet Paisley Museum
~22:00	Coaches to Purple Hotel

FRIDAY 9th MAY 2008	
Session V	Chair: Derek Branford
09:00 – 09:30	Kees de Jager (Jefferson Laboratory) <i>Nuclear structure research at JLab: from neutron stars to quarks</i>
09:30 – 10:00	Hendrik Schatz (Michigan State University) <i>Nuclear astrophysics with rare isotopes</i>
10:00 – 10:30	William Gelletly (University of Surrey) <i>RISING to the challenges</i>
10:30 – 11:00	Coffee and tea break
Session VI	Chair: Marielle Chartier
11:00 – 11:30	Nigel Orr (LPC Caen) <i>Probing the structure of light nuclei beyond the neutron dripline via knockout and breakup</i>
11:30 – 12:00	Dirk Rudolph (Lund University & GSI) <i>RISING: Mirror isomers in the $1f_{7/2}$ shell</i>
12:00 – 12:30	Morten Hjorth-Jensen (University of Oslo) <i>From nuclear forces to the nuclear many-body problem: a tale on many-body methods, status and future perspectives</i>
12:30 – 13:00	Contributed talks [Chaired by Paul Campbell]
13:00 – 14:00	Lunch
14:00 – 14:20	Conference photograph
Session VII	Chair: Mike Bentley
14:20 – 14:50	Jim Beene (Oak Ridge National Laboratory) <i>HRIBF: Science highlights and future perspectives</i>
14:50 – 15:20	Bob Chapman (University of the West of Scotland) <i>The spectroscopy of neutron-rich nuclei using binary reactions</i>
15:20 – 15:50	Anna Wilson (Australian National University) <i>Search for hyperdeformation in ^{124}Xe</i>
15:50 – 16:20	Coffee and tea break & Demonstration by Morten Hjorth-Jensen
Session VIII	Chair: Eddie Paul
16:20 – 16:50	Paul Fallon (Lawrence Berkeley National Laboratory) <i>Neutron-proton coupling in light neutron-rich nuclei</i>
16:50 – 17:00	Break
Public Lecture	Chair: Hugo Maier
17:00 – 18:00	Achim Richter (TU Darmstadt) <i>Playing billiards with microwaves - quantum manifestations of classical chaos</i>
18:10	Coaches to Purple Hotel
19:30	Coaches from Purple Hotel to Mar Hall
20:00	Drinks reception and conference dinner at Mar Hall
~23:30	Coaches from Mar Hall to Purple Hotel

SATURDAY 10th MAY 2008

Session IX	Chair: Alison Bruce
09:00 – 09:30	Piet Van Duppen (KU Leuven) <i>Probing the structure of neutron-rich nuclei around Z=28 using beta decay and Coulomb excitation</i>
09:30 – 10:00	Silvia Lenzi (University of Padova) <i>Structure of neutron-rich nuclei near N=40</i>
10:00 – 10:30	Sean Freeman (University of Manchester) <i>Trends in single-particle states outside Z=50 and N=82 probed with transfer reactions</i>
10:30 – 11:00	Coffee and tea break & Demonstration by Morten Hjorth-Jensen
Session X	Chair: Niels Walet
11:00 – 11:30	Jacek Dobaczewski (University of Warsaw & University of Jyväskylä) <i>Extensions of nuclear energy density functionals beyond the current standard form</i>
11:30 – 12:00	Jerzy Dudek (IReS Strasbourg) <i>Concepts of nuclear stability based on geometrical high-rank symmetries</i>
12:00 – 12:30	Nicolas Schunck (University of Tennessee) <i>Towards the spectroscopy of odd-mass nuclei in density functional theory</i>
12:30 – 13:00	Thomas Duguet (CEA Saclay) <i>Non-empirical pairing energy density functional for nuclei</i>
13:00 – 14:00	Lunch
Session XI	Chair: Wilton Catford
14:00 – 14:30	Martin Freer (University of Birmingham) <i>Clustering in nuclei</i>
14:30 – 15:00	Juha Äystö (University of Jyväskylä) <i>Mass measurements as probes of shell structures near ^{78}Ni</i>
15:00 – 15:30	Cyrus Baktash (Oak Ridge National Laboratory) <i>Probing shell structure away from stability</i>
15:30 – 16:00	Peter Butler (University of Liverpool) <i>Probing nuclear shapes using low energy radioactive beams</i>
16:00 – 16:15	Witek Nazarewicz (University of Tennessee & UWS) <i>Concluding remarks</i>
16:15	Coffee and tea. Close of conference.