

## **"Workshop on Nuclear Isomers: Structure and Applications"**

### **Programme**

#### **Wednesday, 19<sup>th</sup> May: talks in Lecture Theatre E (LTE)**

1230: light lunch(ground floor, Lecture Theatre Block)

1345: Session I Chair/welcome **Phil Walker** (Surrey)

1400: **George Dracoulis** (ANU) "Isomers in Pb, Po and Rn nuclei with  $N \leq 126$ : from octupole-coupled multiparticle states to signatures of shape coexistence"

1445: **Alex Brown** (MSU) "Isomers and their decay modes in the nuclear shell model"

1530: tea/coffee

1600: Session II Chair **Alison Bruce** (Brighton)

1600: **Dave Cullen** (Manchester) "High-K isomers and gamma softness"

1645: contributions

**Jaroslav Perkowski** (Lodz) "Absolute E3 and M2 transition probabilities for electromagnetic decay:  $K=8^-$  isomeric state in  $^{132}\text{Ce}$ "

**Julian Srebrny** (Warsaw) "Mechanism of weakening of the K-forbiddenness in  $^{132}\text{Ce}$ : triaxiality or S-band - yrast-band interaction?"

**Mark Procter** (Manchester) "Analysis of states above the  $K=8^-$  isomer in  $^{138}\text{Gd}$ "

**Filip Kondev** (Argonne) "Decay of the  $K=23/2^-$  isomer ( $T_{1/2}=160.44\text{d}$ ) in  $^{177}\text{Lu}$ : revisited"

**Giovanna Benzoni** (Milan) "Shell evolution in the newly explored n-rich region around  $Z=82$  and far beyond  $N=126$ : experimental details"

**Andrea Gottardo** (Legnaro) "Shell evolution in the newly explored n-rich region around  $Z=82$  and far beyond  $N=126$ : interpretation"

1800: close

1815: reception in the Department of Physics (30BB03)

1900: **David Sanderson** (SUERC) "Detecting irradiated food" *LTM* (IoP talk)

#### **Thursday, 20<sup>th</sup> May: talks in Lecture Theatre F (LTF)**

0900: Session III Chair **Rodi Herzberg** (Liverpool)

0900: **Paul Greenlees** (Jyväskylä) "In-beam and decay studies of high-K states in heavy nuclei"

0945: **Furong Xu** (Peking) "Probing the structure of isomers using a configuration-constrained PES model"

1030: tea/coffee

1100: Session IV Chair **Filip Kondev** (ANL)

1100: **Rod Clark** (Berkeley) "Isomer studies of the heaviest nuclei"

1145: contributions

**Edward Parr** (Liverpool) "Structure assignment methods for K-isomers in  $N=150$  nuclei"

**Ulrika Jakobsson** (Jyväskylä) "Isomeric states in  $^{197,199}\text{At}$  and  $^{203,205}\text{Fr}$ "

**David O'Donnell** (Daresbury) "Recoil-isomer tagging studies in the vicinity of  $Z=82$  and  $N=82$  shell closures"

**Pauli Peura** (Jyväskylä) " $13/2^+$  isomeric states in neutron deficient  $^{173,175}\text{Pt}$  nuclei"

1245: lunch  
 1400: Session V Chair **Zsolt Podolyak** (Surrey)  
 1400: **Hiroshi Watanabe** (RIKEN) "Isomeric decay spectroscopy at RIKEN RI Beam Factory"  
 1445: **Yang Sun** (Shanghai) "Projected shell model description of K isomers"  
 1530: tea/coffee  
 1600: Session VI Chair **Dave Cullen** (Manchester)  
 1600: **Phil Walker** (Surrey) "K-isomer decay rates"  
 1645: contributions  
**Sukhjeet Singh** (Mullana) "Three-quasiparticle-plus-rotor Coriolis coupling calculations"  
**Costel Petrache** (Orsay) "High-spin isomers in nuclei around the N=82 shell closure"  
**Pete Mason** (Surrey) "Recoil-isomer tagging of extremely neutron-deficient nuclei,  $^{142}\text{Tb}$  and  $^{144}\text{Ho}$ "  
**Alick Deacon** (Manchester) "Deformation in the mid fp-shell region: isomer tagging in  $^{59}\text{Cr}$ "  
**Panu Ruotsalainen** (Jyväskylä) "A recoil-beta tagging study of the N=Z nucleus  $^{66}\text{As}$ "  
 1800: close  
 1930: dinner at Zizzi (274 High Street, Guildford)

### **Friday, 21<sup>st</sup> May: talks in Lecture Theatre D (LTD)**

0900: Session VII Chair **Jeff Tostevin** (Surrey)  
 0900: **Andrea Jungclauss** (Madrid) "Isomer spectroscopy after fragmentation and fission reactions at relativistic energies"  
 0945: contributions  
**Tim Brock** (York) "High-spin isomers in  $^{94}\text{Pd}$ "  
**Ed Simpson** (Surrey) "Differential isomeric ratios following two-proton knockout from  $^{208}\text{Pb}$ "  
**Szymon Myalski** (Krakow) "Isomeric ratios for nuclei produced in the fragmentation of  $^{208}\text{Pb}$  at 1 AGeV"  
**Ana Denis Bacelar** (Brighton) "Fragmentation reaction studies of high-spin isomeric states"  
 1045: tea/coffee  
 1115: Session VIII Chair **Pete Thompson** (AWE)  
 1115: contribution  
**Matt Reed** (Surrey) "Discovery of high-spin long-lived K isomers in neutron-rich Ta and Hf isotopes using the ESR at GSI"  
 1130: **Gilbert Gosselin** (CEA) "Nuclear excitation in plasmas: theory and applications"  
 1215: **Jeff Carroll** (Youngstown) "Isomers and apps"  
 1300: close/end (light lunch for participants)