

We will host a 2 day **Workshop on Physics Opportunities Using Arrays of Fast-Timing Gamma-ray Detectors** at the UK National Physical Laboratory (NPL), Teddington, UK.

The Workshop will begin at 1.00pm on Thurs 19th March and finish at 1.30 pm on Fri. 20th March 2015.

The presentations will include a number of overviews of proposed and/or existing arrays using LaBr₃ or CeBr₃ fast-timing detectors, plus a number of short contributed talks on possible physics areas of interest and potential experimental programmes using such detectors and hybrid gamma-ray arrays.

The current list of registered attendees is given below.

If you are not on this list but would like to attend, please email it to p.regan@surrey.ac.uk

ACCOMODATION & DIRECTIONS TO NPL.

Delegates are requested to book their accommodation directly.

Suitable local hotels which are close (less than 1 mile) to NPL include:

- 1) The **Travelodge London Teddington Hotel**, Park House, Station Road, Teddington, TW11 9A, United Kingdom Tel: (+44)-0871 984 6231 ; Fax: 0203 195 8823

<http://www.travelodge.co.uk/hotels/542/London-Teddington-hotel>

- 2) The Park Hotel, Park Road, Teddington, Middlesex TW11 0AB
<http://parkhotelteddington.com/>

- 3) The Lensbury Hotel : <http://www.lensbury.com/hotel/>

Directions to NPL can be found at <http://www.npl.co.uk/> and details of location, how to get to NPL at <http://www.npl.co.uk/contact-us/location/>

List of Attendees for NPL Fast-Timing Physics Workshop
(as of 3 March 2015)

1. Dr. Andy Boston (U. Liverpool, UK)
2. Frank Browne (U. Brighton, UK)
3. Prof. Alison Bruce (U. Brighton, UK)
4. Dr. Robert Carroll (U. Surrey)
5. Dr. Dave Cullen (Manchester, UK) – Thurs only
6. Terver Daniel (U. Surrey)
7. Dr. Adam Garnsworthy (TRIUMF, Vancouver, Canada)
8. Dr. Georgi Georgiev (CNRS, Orsay, France)
9. Prof. Luis Fraile (U. Complutense, Madrid, Spain)
10. Prof. Daryl Hartley (US Naval Academy, Annapolis, USA)
11. Ralitsa Ilieva (U. Surrey, UK)
12. Stoyanka Ilieva (TU Darmstadt, Germany)
13. Prof. Jan Jolie (IFK Koln, Germany)
14. Dr. Steven Judge (NPL, UK)
15. Dr. Gavin Lotay (U. Surrey & NPL)
16. Dr. Wolfram Korten (CEA-Saclay, France)
17. Prof. Thorsten Kroell (TU Darmstadt, Germany)
18. Dr. Greg Lane (ANU, Canberra, Australia)
19. Dr. Giuseppe Lorusso (NPL, UK)
20. Dr. Nicu Marginean (IFIN-HH, Bucharest)
21. Dr. Christina Nita (Brighton/IFIN-HH, Bucharest, Romania)
22. Chantal Nobs (U. Brighton, UK)
23. Dr. Edward Parr (U. West Scotland)
24. Prof. Marina Petri (TU Darmstadt, Germany)
25. Prof. Zsolt Podolyak (U. Surrey, UK)
26. Prof. Paddy Regan (U. Surrey & NPL)
27. Dr. Catherine Scholey (JYFL, Jyvaskyla, Finland)
28. Callum Shand (U. Surrey)
29. Dr. Gary Simpson (U. West of Scotland, UK) - TBC
30. Prof. John Simpson (STFC Daresbury, UK)
31. Prof. John F. Smith (U. West of Scotland)
32. Prof. Andrew Stuchbery (Australian National University, Canberra)
33. Prof. Phil Walker (U. Surrey, UK) - (Fri only)
34. Ryan Wilkinson (U. Surrey, UK)
35. Dr. Jon Wilson (CNRS, Orsay, France)

Proposed Schedule

Thurs 19th March 2015: Room G15

- 1.00 - 1.10: Welcome and Outline Aims of the Workshop: Paddy Regan (NPL / Surrey)
- 1.10 - 1.35: Nicu Marginean (IFIN-HH) Bucharest: *Selected in-beam fast timing experiments with ROSPHERE*
- 1.35 - 2.00: Jan Jolie (IFK-Koln) – *First results of the EXILL+FATIMA Campaign at the Institut Laue Langevin.*
- 2.00 - 2.20: Stefan Lalkovski (Surrey) – *The GAMMASPHERE + FATIMA proposal for ^{252}Cf fission fragment spectroscopy.*
- 2.20 – 2.45: Luis Fraile (U. Complutense, Madrid) *The Technical Design Report for FATIMA & Examples from the ISOLDE Decay Station.*
- 2.45 – 3.00: Cath Scholey (JYFL, Finland) *Possibilities of Fast-timing Measurements at JYFL Separators.*
- 3.00 – 3.20 tea break
- 3.20 – 3.35 David Cullen (U. Manchester) *JYFL LaBr₃ Fast-Timing Set-up, status and perspectives.*
- 3.35 – 4.00 Jonathan Wilson (IPN-Orsay) *LICORNE + FATIMA experiments at IPN-Orsay with Fast-Neutrons.*
- 4.00 – 4.20 Frank Brown (U. Brighton) *Fast beta-gamma timing of neutron-rich Zr isotopes at RIKEN.*
- 4.20 – 4.40 Christina Nita (U. Brighton/IFIN-HH Bucharest) *Lifetime Measurements of nuclear excited states using a mixed array of HPGe and LaBr₃(Ce) detectors.*
- 4.40 – 5.00 A Gary Simpson (UWS) *A summary of fast-timing work in Grenoble and Some Ideas for Future Experiments/ Campaigns (TBC)*
- 5.00-5.20 Giuseppe Lorusso (NPL), *NANA & Fast-timing Algorithms using the CAEN Digital Systems (TBC)*
- 5.20 -5.30 Closing discussion and summary of the day

From 7.30pm, Workshop Dinner at **The Kings Head**, Teddington, cost £20 per head for set, two or three course meal including one glass of wine, see <http://www.kingsheadteddington.com/>

Fri. 20 March 2015 : Room G15

- 09.30 – 09.50 Thorsten Kroell (TU Darmstadt) – *Ideas for fast-timing experiments from TU Darmstadt.*
- 09.50 – 10.10 Adam Garnsworthy (TRIUMF, Canada) - *Lifetime Measurements for the Determination of Electric Monopole Transition Strengths.*
- 10.10 – 10.30 Daryl Hartley (US Naval Academy) – *Neutron-Rich Mo/Ru Nuclei and Triaxial Deformation.*
- 10.30 – 10.50 Andrew Stuchbery (ANU, Canberra) – *Fast-Timing with LaBr₃ for Nuclear Moment Measurements (e.g., ^{110}Cd).*
- 10.50 – 11.10 tea

11.10-11.30 Phil Walker (U. Surrey) – *Determining the Limits of K-Isomerism*.

11.30-11.50 Wolfram Korten (CEA Saclay, France) - TBC

11.50-12.10 Greg Lane (ANU Canberra) - TBC

12.10-12.25 DISCUSSION: Future experimental Campaign at LICORNE – ORSAY (TBC)

12.25-12.40 DISCUSSION: Future Experimental Campaign at GANIL (TBC)

12.40-12.55 DISCUSSION: Future Experimental Campaigns at Fragment Separators (RIKEN, GSI)

12.55-13.10 DISCUSSION: Future Experimental Campaign at the JYFL Separators

13.10-13.30 Final summary discussion and next steps, Close

END OF WORKSHOP