Technical Meeting (F1-TM-55243)  
Vienna International Center  
Room M6  
(Please note change of room compared to Note Verbale)

Technical Meeting on Modern Neutron Detection  
Monday 4 September

12:30 Welcome and Opening by Meera Venkatesh (Director: IAEA-NAPC)

12:40 I Swainson (IAEA) Aims of the Meeting and Introduction of the Programme Committee.

12:45 C Massey (IAEA) Nuclear Security's activities in the field of neutron detection.

**Session A: Detector Materials and Special Detection Techniques**  
Chair: Kanai Shah

13:15 N Zaitseva (USA) *New solid-state organic scintillators for wide-energy neutron detection*

13:45 K Shah (USA) *Next generation neutron detectors*

14:15 CP Nagaraj (India) *Silicon carbide (SiC) neutron detector for power range neutron flux monitoring*

14:45 Coffee

15:15 M Angelone (Italy) *Diamond detectors for neutrons*

15:45 Discussion Session A

16:15 **SESSION E:** J Fuzi [L Rosta](Hungary) *Development of area detectors for neutron beam instrumentation at the Budapest Neutron Centre*

16:45 **SESSION E:** R Hall-Wilton (Sweden) *The next generation of thermal detectors for neutron scattering*
Tuesday 5 September

Session B: Neutron Metrology and Calibration
Chair David Thomas

08:30 V Gressier (France) *Worldwide neutron metrology*

09:00 D Thomas (UK) *Neutron metrology standards*

09:30 V Gressier (France) *Neutron instrument calibration*

10:00 T McLean (USA) *Overview of neutron calibrations at LANL and other DOE facilities*

10:30 Coffee

11:00 W Pereira (Brazil) *Neutron primary standard metrology: measurements and uncertainties*

11:30 V Sathian (India) *A neutron standard for fast identification and standardization of neutron sources*

12:00 Lunch

13:00 H Vega-Carillo (Mexico) *Neutron source condition in the equation diffusion solution*

13:30 Discussion Session B

**Session C: Spectral Unfolding**

Chair: Harry Ing

14:30 M Koslowsky (Canada) *Spectral unfolding – a mathematical perspective*

15:00 V Radulovic (Slovenia) *Neutron spectrum adjustment and cross-section validation activities at the Jožef Stefan Institute*

15:30 Coffee

16:00 Discussion Session C
Wednesday 6 September

**Session D: Rem meters and Monitors**

Chair: Thomas McLean

09:00 A Justus [T McLean] (USA) *Recent firmware and hardware improvements to the HPI 2080 pulsed neutron Rem meter*

09:30 R Chandra (Switzerland) *Noble-gas based neutron detectors with low voltage SiPM readout*

10:00 B van der Ende (Canada) *Recent neutron detection work at Canadian Nuclear Laboratories*

10:30 Coffee

11:00 Discussion Session D

**Session E: Detection of Thermal and Subthermal Neutrons**

Chair: Eberhard Lehmann

11:30 X Cai (Denmark) *Monte Carlo simulation of thermal neutron scattering processes in condensed matter – complete detector and experiment simulation*

12:00 Lunch and POSTER

W Mach (Austria) *Current neutron detector development at the Atominstitut*

13:30 M Hildebrandt (Switzerland) *Thermal neutron detection with ZnS(Ag)/LiF scintillator using embedded WLS fibers and SiPMs*

14:00 E Lehmann (Switzerland) *Status and progress in neutron imaging detection systems*

14:30 B Seitz (UK) *Pixellated neutron detectors with excellent timing resolution*

15:00 Coffee and POSTER

W Mach (Austria) *Current neutron detector development at the Atominstitut*

15:30 Z Yu (China) *Current thermal neutron detection technique development in China*

16:00 S Kulikov (Russia) *Development of neutron detectors for the spectrometers of the IBR-2 reactor*

16:30 Discussion Session E
Thursday 7 September

Session F: Fast Neutron Detection

Session F1: High-Resolution Spectroscopy
Chair: Vincent Gressier

09:00 A Buffler (South Africa) *A new compact neutron spectrometer*

09:30 H Ing (Canada) *ROSPEC – a unique fast neutron spectrometer*

10:00 F Messi (Sweden) *Tagging neutrons at the source testing facility* (Lund University)

10:30 R Mayer (Argentina) *Absolute neutron counting the influence method*

11:00 Coffee and POSTER

H. Tsuchiya (Japan) *Development of a compact neutron resonance transmission analysis system for nuclear non-proliferation*

**Session F2: Low-Resolution Spectroscopy**

Chair: Nolan Hertel

11:30 N Hertel (USA) *Neutron spectroscopy with moderated detectors*

12:00 R Bedogni (Italy) *Neutron spectrometers from thermal energies to GeV based on single moderators*

12:30 Lunch

14:00 A. Licea (Canada) *Measurements of neutron source term using the nested neutron spectrometer in pulse and current mode*

14:30 H. Vega Carillo (Mexico) *Neutron spectrometry around LINACs using passive Bonner sphere spectrometer in planetary mode*

15:00 S. Kwon (Japan) *Activation foil candidates for intense d-Li neutron measurement up to 60 MeV*

15:30 Coffee and POSTER:

H. Tsuchiya (Japan) *Development of a compact neutron resonance transmission analysis system for nuclear non-proliferation*

16:00 Z Hlavathy (Hungary) *Comparison of neutron interrogation methods for determination of small quantities of fissile material*

16:30 Discussion Session F
Friday 8 September

Session G: Fusion
Chair: Lee Packer

09:00 M Tardocchi (Italy) Review of neutron spectroscopy techniques for fusion plasmas and recent advances on GEM based thermal neutron imaging detector

09:30 M Ceconello (Sweden) Review of neutron detection techniques and needs for future fusion devices

10:00 I Stamelatos (Greece) Novel neutron activation detector for fusion

10:30 Coffee

11:00 L Packer (UK) Neutron detection technologies and measurement challenges at JET

11:30 V Kraslikov (ITER) Neutron measurements challenges at ITER

12:00 Discussion Session G

12:45 Lunch

14:00 Summary of Meeting

14:30 Outline of plans for Agency publication

15:00 Close of Meeting