



ANIMMA
2009

**International Conference on
Advancements in Nuclear Instrumentation, Measurement
Methods and their Applications
ANIMMA
- June 7-10, 2009 -**

❖ Provisional Detailed Program ❖

		Session 1.1 : Measurement and Detection Methods in Fundamental Physics (Nuclear Physics and Physics of Particles)					
		Callelongue		Morgiou		Sormiou	
		Chairmen					
		Pr. Eric KAJFASZ (CNRS/IN2P3-CPPM Marseille, FR)		Pr. Bernard TAMAIN (CNRS/IN2P3-LPC Caen, FR)		Dr. Frédéric MARIE (CEA/DSM, FR)	
10:40 - 11:00	#2	M. SPIRO (CNRS/IN2P3, FR)		#23	N. BENEKOS (Univ. of Illinois, US) - ATLAS Muon Spectrometer Using Cosmic Rays and First Beam Data	#42	G. HALLEWEL (CNRS/IN2P3-CPPM Marseille, FR) - New Developments of Scintillating Crystal-Based Hybrid Single Photon Detectors (X-HPDs) for Charged Particle and Neutrino Detection Applications
11:00 - 11:20				#35	The NA62 collaboration - Usage of Silicon PhotoMultipliers for the CEDAR Differential Cherenkov Counter in the NA62 Experiment at the CERN SPS	#40	A. FONTANA (INFN, IT) - Study of the Performances of HPGe Detectors Operating in Very High Magnetic Fields
11:20 - 11:40	#21	The ATLAS Tile collaboration - ATLAS Tile Calorimeter Commissioning and Performance		#211	J. BAUDOT (CNRS/IN2P3-IPHC Strasbourg, FR) - A New CMOS Sensor Generation for High Energy Physics and Imaging Application	#33	P.-Y. DUVAL (CNRS/IN2P3-CPPM Marseille, FR) - Conception and Validation Software Tools for a Complex Online Data Selection System
11:40 - 12:00	#48					I. MANDIC (Jozef Stefan Institute, SI) - Online Radiation Dose Measurement System for ATLAS Experiment	#216
12:00 - 12:20	#50	M. MINANO (Instituto de Fisica Corpuscular, ES) - Characterization of P-type Silicon Detectors Under Neutron Irradiation Expected for Super LHC		#41	O. GRITZAY (Institute for Nuclear Research, UA)- Precision Neutron Total Cross Section Measurements for Natural Hafnium at Reactor Neutron Filtered Beam	#46	K. COPIC (Univ. of Columbia, US) - Status of the ATLAS Liquid Argon Calorimeter and its Performance from Selected Test Beam Results and Commissioning Data
12:20 - 12:40	#265			P. LEDU (CNRS/IN2P3-IPN Lyon, FR) - ATCA/mTCA for Large Instruments			
12:40 - 14:00	Lunch Break						

Session 1.2 : Experimental Nuclear Reactors Instrumentation and Measurement Methods						
		Callelongue	Morgiou		Sormiou	
		Pr. Gordon KHOZE (MIT, US)	Pr. Winfried PETRY (TU Munich, DE)		Pr. George IMEL (ISU, US)	
		Chairmen				
14:00 - 14:20	#3	D. IRACANE (CEA/DEN, FR)	#227	A. LETOURNEAU (CEA/DSM, FR) - Recent Developments on Micrometric Fission Chambers for High Neutron Fluxes	#237	G. RITTER (CEA/DEN, FR) - Neutron Commissioning in the New CABRI Water Loop Facility
14:20 - 14:40			#131	W. ITAGAKI (JAEA, JP) - In-Vessel Visual Inspection of Experimental Fast Reactor Joyo	#102	P. CASOLI (CEA/DAM, FR) - Calculation of Kinetic Parameters of CALIBAN Metallic Core Experimental Reactor from Stochastic Neutron Measurements
14:40 - 15:00	#112	J. REMPE (INL, US) - New Sensors for In-Pile Testing at the ATR NSUF	#133	K. THOMSEN (PSI, CH) - Pressure Measurement Based on Thermocouples	#221	P. BLAISE (CEA/DEN, FR) - Application of the Modified Source Multiplication (MSM) Technique to Subcritical Reactivity Worth Measurements in Thermal and Fast Reactor Systems
15:00 - 15:20	#66	D. SHIPPEN (Univ. of Lancaster, GB) - A Wavelet Packet Transform Method for the Discrimination of Neutrons and Gamma Rays			#226	J.L. LECOUEY (CNRS/IN2P3-LPC Caen, FR) - Monitoring Fast Neutron Sources For Accelerator Driven Subcritical Reactor Experiments
15:20 - 15:40	#104	K.N. CHOO (KAERI, KR) - Measurement and Evaluation of the Irradiation Test Parameters for a Specimen in a HANARO Material Irradiation Capsule	#137	S. ZARISTKIY (Kurchatov Institute, RU) - Neutron and Gamma Spectrometry in the Research Reactor LR-0	#240	A. ROHRMOSER (TU Munich, DE) - Evaluation of In-Pile Neutron Signals During the Start-up Phase of the FRM II Compact Core
15:40 - 16:00	#239	H. BREITKREUTZ (TU Munich, DE) - The Beam of Fission Neutrons at FRM II and its Application in Medicine, Biology, and Materials Characterisation	#125	C. JAMMES (CEA/DEN, FR) - Research Activities in Fission Chamber Modelling in Support of the Nuclear Energy Industry		
16:00 - 16:20	Coffee Break					

Plenary Session - Room Callelongue	
Poster summaries "1.1 & 1.2 sessions"	
16:20 - 17:20	Dr. Gilles BIGNAN (CEA/DEN, FR) & Pr. Yvan BRUYNSERAEDE (K.U. Leuven, BE)

Session 1.3 : Nuclear Instrumentation and Measurements for Safety, Environment and Health Applications			
Callelongue		Morgiou	
Chairmen			
Pr. Denis BERTIN (Univ. of Provence, FR)		Dr. Massimo MORICHI (CANBERRA, US)	
17:20 - 17:40	#4	R. MARCH (Univ. of Trent, CA) - Application of Mass Spectrometry and Nuclear Magnetic Resonance to Environmental Problems	#252
17:40 - 18:00			S. LEGOUPIL (CEA/DRT, FR) - Recent progresses in Industrial Tomography
18:00 - 18:20	#271	A. JANULYTE (Univ. of Provence, FR) - Calibration and Fluctuation of the Secular Frequency Peak Amplitude Versus Initial Condition Distribution of the Ion Cloud Confined into a Three-Dimensional Quadrupole Ion Trap using a Fourier Transform Operating Mode	#249
			J. ADAMS (Univ. of Lancaster, GB) - Depth Determination of Entrained Caesium-137 and Cobalt-60 Sources Using Scatter Peak Data
			V. POPOV (TJNAF, US) - Precision Environmental Radiation Monitoring System

18:45	Bus departure for cocktail at MARSEILLE Town Hall
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9 June 2009 - "Students Visit Day"

		Session 2.1 : Measurement and Detection Methods in Fundamental Physics (Fusion and Plasma Physics)		
		Callelongue	Morgiou	
		Chairmen		
		Dr. Alan COSTLEY (Iter Organization, FR)	Dr. Thierry MASSARD (CEA/DAM, FR)	
8:40 - 9:00	#5	A. COSTLEY (Iter Diagnostic Section, FR)	#24	N. BOUKHAROUBA (Univ. of Guema, DZ) - Final Results of a New Measurement of the H(n,n)H Elastic Scattering Angular Distribution at 14.9 Mev
9:00 - 9:20			#26	M. ANGELONE (ENEA, IT) - Neutron Spectroscopy by Means of Artificial Diamond Detectors Using a Remote Read Out Scheme
9:20 - 9:40	#236	R. REICHLÉ (CEA/DSM, FR) - On the Operational Specifications and Associated R&D for the VIS/IR Diagnostic for ITER	#68	I. THFOIN (CEA/DAM, FR) - High Resolution Neutron Imaging for Inertial Confinement Fusion Experiments
9:40 - 10:00	#116	P. MOREAU (CEA/DSM, FR) - Development of a Magnetic Diagnostic Suitable for the ITER radiation environment		
10:00 - 10:20	#59	R. SABOT (CEA/DSM, FR) - Microwave Reflectometry: a Sensitive Diagnostic for Electron Density Property Measurement in Tore-Supra Fusion Plasmas		
10:20 - 10:40	Coffee Break			

Session 2.2 : Instrumentation and Measurement Methods for Nuclear Fuel Cycle						
Callelongue		Morgiou			Sormiou	
Chairmen						
Pr. Bernard BOULLIS (CEA/DEN, FR)		Dr. Martin SWINHOE (LANL, US)			Pr. Abdallah LYOUSSI (CEA/DEN, FR)	
10:40 - 11:00	#6	M.-F. DEBREUILLE (AREVA-NC, FR)	#144	F. DE BRUYCKER (EC/ITU, DE) - Experimental Studies on Nuclear Fuel at High Temperature and High Pressure Via Laser Heating	#138	P. BERGONZO (CEA/DRT, FR) - Diamond Detectors for Alpha Monitoring In Corrosive Media For Nuclear Waste Monitoring
11:00 - 11:20			#107	G. DUCROS (CEA/DEN, FR) - Use of Gamma Spectrometry for Measuring the Fission Product's Release During a Simulated PWR Severe Accident: Application to the VERDON Experimental Programme	#145	S. DOGNY (AREVA-NC, FR) - Feedback from the Operation of the ISOCS in Support to the Plutonium Facility Decommissioning Project at the MARCOULE UP1 Reprocessing Plant (France) and Possible Gain for New Projects with New CANBERRA Systems
11:20 - 11:40	#146	I. ESPAGNON (CEA/DRT, FR) - SIGALE, a New Code for Automatically Determining Radionuclide Activities Using CdZnTe Spectrometry		K. KATSUYAMA (JAEA, JP) - Application of X-Ray Computer Tomography for Observing the Central Void Formations and the Fuel Pin Deformations of Irradiated FBR Fuel Assemblies	#241	F. CARREL (CEA/DRT, FR) - Measurement of Plutonium in Large Concrete Radioactive Waste Packages by Photon Activation Analysis
11:40 - 12:00	#275	J. ROUQUEROL (Univ. of Provence, FR) Sample-Controlled Evolved Gas Analysis : an Efficient Technique to Produce Tailored Uranium Oxide Powder from Hexahydrated Uranyle Nitrate	#149		#148	G. GRANIER (CEA/DEN, FR) - A Methodology to Evaluate the Performances of Software, Using Gamma Spectrometry, for Determining the Isotopic Composition of Plutonium and Uranium
12:00 - 12:20	#264	A. NONELL (CEA/DEN, FR) - Application of Collision Reaction-Cell Based MC-ICPMS to In-Situ Interferences Resolution for Isotopic Measurements of Nuclear Samples	#210	E. BARAT (CEA/DRT, FR) - ADONIS: a New Concept of X/GAMMA PULSE analyzer	#153	A.-C. RAOUX (CEA/DEN, FR) - Improvement of the Matrix Effect Compensation in Active Neutron Measurement by Simulated Annealing Algorithm
12:20 - 12:40	#155	A.-C. SIMON (CEA/DRT, FR) - Determination of Actinides Isotopic Composition : Performances of the IGA Code According to the Experimental Setup	#242	M.J. JOYCE (Univ. of Lancaster, GB) - The Design, Build and Test of a Digital Analyser for Mixed Radiation Fields		
12:40 - 14:00	Lunch Break					

Session 2.3 : Safeguards Measurements and Homeland Security									
		Callelongue			Morgiou			Sormiou	
		Chairmen							
		Dr. Alain PLUQUET (CEA/DRT, FR)		Pr. Sara POZZI (Univ. of Michigan, US)		Dr. Michel BRUGGEMAN (SCK, BE)			
14:00 - 14:20	#1	R. KOUZES (PNNL, US) - Interdiction of Nuclear Threats at Borders	#162	S. DAZELEY (LLNL, US) - Neutron Detection with Water Cerenkov Based Detectors	#245	M. BRUGGEMAN (SCK-CEN, BE) - k0-NAA for Environmental Monitoring for Safeguards			
14:20 - 14:40			#165	H. FURUTA (TI Tokyo, JP) - Measurement of Reactor Neutrinos and Backgrounds at the Experimental Fast Reactor JOYO	#171	L. MIHAILESCU (LLNL, US) - Stand-Off 3D Gamma-Ray Imaging for Safeguards			
14:40 - 15:00	#157	S. AHLEN (Univ. of Boston, US) - A Background-Free Direction-Sensitive Neutron Detector	#177	B. QUITER (UC Berkeley, US) - Nuclear Resonance Fluorescence for Materials Assay	#270	M. MILLER (LANL, US) - Safeguards Research and Development for the Advanced Fuel Cycle Initiative			
15:00 - 15:20	#161	L. BUTCHINS (Home Office, GB) - Is the Holy Grail Plastic ? Radiation, Identification from Plastic Scintillators			#248	B. CABRERA-PALMER (SNL, US) - Advances Towards Readily Deployable Antineutrino Detectors for Reactor Monitoring and Safeguards			
15:20 - 15:40	#176	A. PORTA (CEA/DSM, FR) - Reactor Neutrino Detection for Non Proliferation with the NUCIFER Experiment	#175	A. PICCOTTI (INFN, IT) - Cosmic Ray Radiography with RPC for High-Z Material Identification	#181	M. SWEET (IAEA, AT) - The IAEA Universal Nondestructive Assay Data Acquisition Platform (UNAP)			
15:40 - 16:00	#277	V. VALKOVIC (ACTdoo, HR) - Environmental Security of the Adriatic Coastal Sea Floor	#259	M. SWINHOE (LANL, US) - An Integrated Approach for Determining Plutonium Mass in Spent Fuel Assemblies with Nondestructive Assay					
16:00 - 16:20	Coffee Break								
Plenary Session - Room Callelongue									
16:20 - 17:20	Poster summaries "2.1, 2.2 & 2.3 sessions" Dr. Daniel PARRAT (CEA/DEN, FR) & Dr. Alain LEBRUN (IAEA, AT)								

Session 2.4 : Power Nuclear Reactors Instrumentation and Measurements Methods						
		Callelongue	Morgiou		Sormiou	
		Chairmen Dr. Jean-Marc CAVEDON (PSI, CH)	Dr. Jean-François VILLARD (CEA/DEN, FR)		to be confirmed	
17:20 - 17:40	#77	F. BAQUE (CEA/DEN, FR) - R&D Program for Improving Inspection of Sodium Cooled Systems	#284	G. BUIMISTRUIC (STU, RU) - Intelligent Fiber Optic Pressure Sensor for Measurements in Extreme Conditions	#81	P. BORODKIN (SEC NRS, RU) - Application of Integral Ex-Core and Differential In-Core Neutron Measurements for Adjustment of Fuel Burn-Up Distributions in VVER-1000
17:40 - 18:00			#90	E. ROSENKRANTZ (Institut d'Electronique du Sud, FR) - Non-Destructive Ultrasonic Method for Nuclear Rods Measurement and Gas Released Measurement	#82	F. BRONSON (CANBERRA, US) - The Application of Mathematical Modeling and Simulations for Commercial Nuclear Instrumentation Design, Development and Calibration
18:00 - 18:20	#76	C. BABU RAO (IGCAR, IN) - Raman Distributed Sensor System for Temperature Monitoring and Leak Detection in Sodium Circuits of FBR	#83	R. COULON (CEA/DRT, FR) - Sodium Fast Reactor Power Monitoring using ²⁰ F Tagging Agent	#262	A. GIRAUD (CEA/DRT, FR) - Full Autonomous Monitoring Tools Inside Nuclear Reactor Building
18:20 - 18:40	#286	R. BASKARAN (IGCAR, IN) - Aerosol Characterization and Measurement Techniques Towards SFR Safety Studies				
19:15	Bus departure for Gala Dinner at CASSIS					
00:00	Back to Parc Chanot (Bus)					

10 June 2009

	Plenary Session - Room Callelongue
8:40 - 9:30	Poster summaries "1.3, 2.4, 3.1 & 3.2 sessions" Dr. Hamit AIT ABDERRAHIM (SCK-CEN, BE) & Dr. Frédéric MARIE (CEA/DSM, FR)

	Session 3.2 : Associated Training and Education Activities	
	Callelongue	
	Chairmen	
	Pr. Philip BEELEY (SULTAN NDD, GB)	
9:30 - 10:10	#8	J. ANDRE (University of Provence, FR) & L TURPIN (INSTN, FR)
10:10 - 10:30	#209	C. PAFILIS (Greek Atomic Energy Commission , GR) - Education and Training on Nuclear Security in Greece
10:30 - 10:50	#272	A. WAKER (Univ. of Ontario, CA) - Radiological Science Education in the Context of the Nuclear Industry in Ontario

10:50 - 11:00	Coffee Break
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	Session 3.1 : Nuclear Instrumentation and Measurements for Safety, Environment and Health Applications		Session 3.3 : Nuclear Instrumentation for Safeguards and Nuclear Fuel Cycle			
	Callelongue		Morgiou			
	Chairmen Pr. Jean-François CHATAL (Univ. Of Nantes, FR)		Chairmen Dr. Anne FLÜRY-HERARD (CEA/DSV, FR)			
			Sormiou			
			Dr. Michael MILLER (LANL, US)			
11:00 - 11:40	#7	D. TOWNSEND (Univ. of Tennessee, US)				
11:40 - 12:00	#9	J.F. CHATAL (Univ. of Nantes, FR)	#29	C. CAPPELLINI (Univ. of Insubria, IT) - Novel SiPM Based Devices for Safety, Environment and Health Applications	#58	B. ROTTNER (ONET Technologies, FR) - Effect of Mass and Activity Heterogeneities on the Activity Measurement of Large Packages of Radioactive Waste
12:00 - 12:20			#194	F. LE FOULHER (CNRS/IN2P3-IPN Lyon, FR) - Prompt Gamma-Ray Monitoring During Carbon Ion Therapy: Comparison Between Measurements and Geant4 Simulations	#169	A. LEBRUN (IAEA, AT) - Improved Verification Methods for Safeguards Verifications at Enrichment Plants
12:20 - 12:40	#190	W. GAO (IPHC Strasbourg, FR) - Development of a Low-Noise Front-End Readout Chip Integrated with a 89-ps Timing Digitizer for APD-Based Small-animal PET Imaging	#196	S. MAGNE (CEA/DRT, FR) - Multichannel OSL Optical Fibre Dosimeter for In VIVO Dosimetry in Radiotherapy	#166	K. IANAKIEV (LANL, US) - Advanced Enrichment Monitoring Technology Based on Transmission Measurements with X-Ray Source and NaI(Tl) Spectrometer
12:40 - 13:00	#251	N. KAWACHI (JAEA, JP) - Imaging for Carbon Translocation to a Fruit of Tomato with Carbon-11 Labeled carbon Dioxide and Positron Emission Tomography				
13:00 - 14:30	Lunch Break					

14:30	Panel conclusions - Chaired by Pr. Em. Michel GIOT (Université Catholique de Louvain, BE), Chairman of the Scientific Committee Intervention of Harold FLESCHER (President of the IEEE Technical Activities Board, US) Awards for two Best Posters Award for Ph.D. Best Poster
16:00	Final Conclusions of the meeting
16:30	Adjourn