



VILLA OLMO (COMO-ITALIA)

## ICATPP Conferences

8th ICATPP Conference on  
Astroparticle, Particle, Space Physics, Detectors and Medical Physics Applications  
Villa Erba, 6-10 October, 2003

Organizing Committee:

E.Borchi, INFN and University of Florence  
J.Huston, Michigan State  
C.Leroy, University of Montreal  
P.G.Rancoita, INFN-Milano  
R.Ruchti, University of Notre Dame

Industry Organizing Committee

to follow relationships with attending Companies and their representatives, issues on technology transfer among Research Institutions and Companies and the Exhibition at the Conference:

M.Barone, Demokritos Athens  
P.L.Riboni, ETHZ-Zurich

Sessions Organizers and International Advisory Committee:

S.Baccaro, ENEA-Rome  
P.Binko, Observatoire de Genere and Synspace  
W.Braunschweig, Aachen  
A.Breskin, Weizmann Institute  
A. Capone, INFN and University "La Sapienza", Rome  
K.Freudenreich, ETH-Zurich  
S. Giani, CERN  
E.Longo, INFN and University "La Sapienza", Rome  
E.Nappi, INFN-Bari  
S.Pospisil, CTU Prague  
L.Price, ANL  
T.J.Ruth, TRIUMF  
F.Van Lingen, California Institute of Technology  
S.Volontè, HQ ESA  
C. Waltham, Univervisty of British Columbia, Vancouver  
P. Weilhammer, CERN



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# ICATPP Conferences

**Conference Overview :** <http://villaolmo.mib.infn.it/Conference2003.html>

Monday	Tuesday	Wednesday	Thursday	Friday
9.30: registration	8.30 HEP experiments (plenary)  10.30	8.30 New Detectors (plenary)  10.30	8.30 Radioth.&Med .Imag (plenary)  10.30	8.30 Radioth.&Med .Imag (plenary)  10.30
10.50: Opening	10.30-11.00 Coffee break			
Space experiments (plenary)	11.00 Computing Progress & Industrial Trend (plenary)  13.00	11.00 Astropart. Experiments (plenary)  13.00	11.00 Astropart. Experiments (plenary)  13.00	11.00 session continuation (plenary)
13.00-14.30 Lunch				12.40: Final Remarks
14.30 // sessions: Space Exper. I (I) Tracker I (II) HEP experiments (III) Calorimetry (IV)  Poster session  16.00	14.30 // sessions: Space Exper. II (V) Astrop.Underg.Exp. (VI) Tracker II (VII) Homog.Calorimet. (VIII)  Poster session  16.00	14.30 // sessions: Tracker III (IX) Medical App. Instr. (X) Particle identification(XI) Software applic.s (XII)  Poster session  16.00	14.30 // sessions: Radiation damage (XIII) New detectors (XIV) Information Techn. (XV) Radioth.&Med.Imag(XVI)  Poster session  16.00	
16.00-16.30 Coffee break				
16.30 sessions continuation				
18.00				
18.00 Open Session on Exp. Results in Accelerator Developm.	18.00 Open Session on Exp. Results in Accelerator Developm.	18.00 Open Session on Exp. Results in Accelerator Developm.	18.00 Open Session on Exp. Results in Accelerator Developm.	
18.40				
18.40 Adjourn				
20.00: supper with relevant guest of opening session	20.00: meeting for organizers and advisory c. members	20.00: BANQUET	19.00: meeting for organizing committee members	

A special Covenant connects the Villa Olmo “A.Volta” Centre for Scientific Culture to the “Politecnico di Milano”, the University of Milano and the University of Pavia, Brescia and Insubria



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## ICATPP Conferences

### Plenary Session Organizers:

[P.Binko, Observatoire de Geneve & Synspace](#): Computing Progress and Industrial trend  
[A.Breskin, Weizmann Institute](#): New Detectors  
[A.Capone, INFN and University of Rome1](#): Astroparticle and Underground Experiments  
[L.Price, ANL](#): High Energy Physics Experiments  
[R.Ruchti, University of Notre Dame](#): Open Session on Experimental Results  
[T. Ruth, TRIUMF](#): Radiotherapy and Medical Imaging  
[S.Volontè, ESA Paris](#): Space Experiments  
[C.Waltham, UBC, Vancouver](#): Astroparticle and Underground Experiments

### Parallel Session Organizers:

[S.Baccaro, ENEA \(Rome\)](#): Radiation Damage  
[A.Breskin, Weizmann Institute](#): New Detectors  
[A.Capone, INFN and University of Rome1](#): Astroparticle and Underground Experiments  
[K.Freudenreich, ETH-Zurich](#): Tracker and Silicon Tracker (Tracker I, II and III)  
[S.Giani, CERN Geneva](#): Software Applications  
[C.Leroy, University of Montreal](#): Calorimetry  
[E.Longo, INFN and University of Rome1](#): Homogeneous Calorimetry  
[E.Nappi, INFN-Bari](#): Particle Identification  
[S.Pospisil, IEAP CTU Prague](#): Medical Application Instrumentation  
[L.Price, ANL](#): High Energy Physics Experiments  
[R.Ruchti, University of Notre Dame](#): Open Session on Experimental Results  
[F.Van Lingen, California Institute of Technology](#): Information Technology  
[S.Volontè, ESA Paris](#): Space Experiments  
[C.Waltham, UBC, Vancouver](#): Astroparticle and Underground Experiments



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## ICATPP Conferences

### Organizers of Industry Participation and Exhibition

M.Barone, Demokritos Athens

P.L.Riboni, ETHZ-Zurich

### Open Sessions on Experimental Results:

**are scheduled from Monday up to Thursday at 18.00, and are dedicated to Accelerator Developments by invited Speakers**

Posters can be exhibited in the hall near the main hall at any time from Monday up to Thursday.

(these sessions are organized by R.Ruchti, University of Notre Dame)



## ICATPP Conferences

M O N D A Y 6			
9.30			
REGISTRATION			
10.50: Opening			
Space Experiments Ses.Org.:S.Volontè Chairm.: S.Volontè			
Room: Salone			
13.00-14.30			
Lunch			
14.30	14.30	14.00	14.00
(I) Space Experiments I Ses.Org.:S.Volontè Chairm.: S.Volontè Room: Salone	(II) Tracker I Ses.Org.: K.Freudenreich Chairm.: K.Freudenreich Room: Sala Ovale	(III) High Energy Phys. Ses.Org.: L.Price Chairm.: L.Price Room: Sala Bacco	(IV) Calorimetry Ses.Org.:C.Leroy Chairm.:C.Leroy Room: Sala Musica
16.00-16.30			
Coffee break			
16.30	16.30	16.30	16.30
session continuation	session continuation	session continuation	session continuation
18.00	18.00	18.00	18.00
18.00			
Open session on Experimental results in accelerator developments			
18.40			
18.40 Adjourn			



## ICATPP Conferences

# Conference programme

(the time allocated for talks includes a short discussion )

Monday 6

9.30 : REGISTRATION

**plenary session: 10.50 - 13.00**

Opening session: (Chairman: S.Volontè, HQ ESA)

**room: Salone**

10.50 : P.G. Rancoita (INFN-Milano): Conference opening

plenary session on Space Experiments (Chairman: S.Volontè, HQ ESA)

session organizer: S.Volontè, HQ ESA

W. Ertmer (Hannover): Cold Atoms in Space

K. Danzmann (Hannover): Space Detection of Gravitational Waves

F. Bouchet (Paris): Space Investigation of the Cosmic Microwave Background

M. Salamon (NASA HQ) : Beyond Einstein. NASA's Plan in Space Physics



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## ICATPP Conferences

**Monday 6**

**parallel sessions: 14.30 - 18.00**

parallel session I on Space Experiments I (Chairman: S.Volontè, HQ ESA)

session organizer: S.Volontè, HQ ESA

**room: Salone**

T. Sumner (London): Space Test of the Equivalence Principle  
L. Latronico (INFN-Pisa): The Glast Project  
Y. Takahashi (Huntsville): The Extreme Universe Space Observatory (EUSO)

16.00 - 16.30 coffee break

S. Raino (Bari): Dynamic and thermal tests on GLAST LAT Tracker  
F. Gargano (Bari): Electrical and geometrical tests on wafers and ladder of GLAST tracking system  
A. Morselli (Roma): Search for supersymmetric Dark Matter with Glast  
R. Wischnewski (Rome2 and DESY-Zeuthen): The Pamela Experiment Status

parallel session II on Tracker I (Chairman: K.Freudenreich, ETHZ)

session organize : K.Freudenreich, ETHZ

**room: Ovale**

G.Calderini (Pisa): The BaBar Silicon Tracker  
G. Moloney (Univ. Melbourne): The Belle SVD Tracker  
B. List (ETH Zurich): The H1 Silicon Tracker  
H. Voss (Univ. Lausanne): The LHCb Silicon Tracker

16.00 - 16.30 coffee break

C. Parkes (Glasgow Univ.): Developing rad. hard Silicon for the LHCb Vertex Locator  
A. Kluge (CERN): The ALICE silicon pixel detector (SPD)  
C. Gemme (Univ. Genova): The ATLAS Pixel Detector  
J. E. Garcia (IFIC Valencia): ATLAS SCT module performance

parallel session III on High Energy Physics (Chairman: L.Price, ANL)

session organizer: L.Price, ANL

**room: Sala Bacco**

T. Maeno (CERN): Test Beam Results on the ATLAS First-Level Endcap Muon Trigger System



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## ICATPP Conferences

- M. P. Casado (CERN): Architecture of the ATLAS Online Physics-Selection Software at the LHC
- D. Campi (CERN): CMS Magnet Technology
- A. Gaddi (CERN): The CMS Magnet: Major Technological Breakthroughs from the Conductor to the Winding Line

16.00 - 16.30 coffee break

- S. Maltezos (National Technical Univ. Athens): High Performance Multilayer Notch Optical Filters for High Energy Detector Applications and their Coating Process Control
- N. Tuning (CERN): Efficient Triggering with the LHCb Detector for Precise CP Measurements
- E. Lodi Rizzini (INFN/BS): The Athena Experiment

*parallel session IV on Calorimetry (Chairman: C.Leroy, University of Montreal)*

*session organizer: C.Leroy, University of Montreal*

**room: Sala Musica: NOTE this session will start at 14.00**

- A. Bulgheroni (Univ. Milan): Silicon pad detectors for an electromagnetic calorimeter at future linear collider experiments: characterisation and test beam results
- S. Menke (Max-Planck-Institut fuer Physik): Energy-calibration of the ATLAS hadronic and electromagnetic liquid-argon endcap calorimeters
- R. Sacco (LAL, Orsay, France): Performances of the ATLAS electromagnetic calorimeter modules
- A. Jeremie (LAPP, Annecy): The ATLAS liquid argon electromagnetic calorimeter construction status
- R. Orr (Univ. Toronto): Overview of Testing and Installation of ATLAS Liquid Argon Calorimeters

16.00 - 16.30 coffee break

- P. Checchia (INFN Padova): LCcal, a calorimeter prototype for future linear colliders
- A. Oulianov (ITEP, Moscow): Jet Recognition at High Luminosity
- V. Hagopian (Florida State): The Large Hadron Collider Compact Muon Solenoid (CMS) Hadron Calorimeter
- P. de Barbaro (Rochester): Test beam results of CMS HCAL calorimeter

At 18.00 up to 18.40

*Open Session on Experimental Results on Accelerator Developments (Chairman: R.Ruchti, University of Notre Dame)*

*session organizer: R.Ruchti, University of Notre Dame*

**room: Salone**

- C. Pagani (INFN Milano and DESY): Linear Collider Status and Perspectives



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## ICATPP Conferences

POSTER SESSION from Monday up to Thursday (Chairman: R.Ruchti, University of Notre Dame)

session organizer: R.Ruchti, University of Notre Dame

- E.J. Buis (Cosine Research BV): Design and simulated performance of the gamma ray and neutron spectrometer for the BepiColombo mission
- M. Barucci (INFN-Florence): Aluminium alloys for space applications: low temperature thermal conductivity of A6061-T6 and A1050
- E. Olivieri (INFN-Florence): Thermal expansion coefficient of cold-pressed Silicon Carbide
- C. Leroy (Univ. of Montreal): Status of the PICASSO Project
- I. Bolshakova (Lviv Polytechnic National University): Experimental investigation of high-energy neutron effect on indium antimonide semiconductor microcrystals directly during their irradiation in reactor channel
- D. Pinci (INFN–Roma): Study and Performance of a Fully Automatized Wire Tension Meter Developed for the LHCb Muon Detector
- M. Uslenghi (Istituto di Astrofisica Spaziale e Fisica cosmica): Nanostructured materials for UV->VIS wavelength shifting: a new method to improve the QE of optical detectors in NUV
- E. Micelotta (INFN-Milano): Geographical Feature of the AMS Belts: a simulation with particle tracing
- P. Fuochi (Institute for Organic Synthesis and Photoreactivity (ISOF)-CNR): Radiation induced defects in bipolar power transistors: the influence of radiation energy
- L. Risegari (Firenze): Very-low-temperature thermal conductivity of polymeric supports for massive cryogenic detectors
- A. Akindinov (ITEP): Detection of the light produced in scintillating tiles by mean of a WLS fiber and of an avalanche photodiode working in the Geiger mode



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## ICATPP Conferences

T U E S D A Y    7			
8.30			
HEP Experiments Ses.Org.:L.Price Chairm.:L.Price Room: Salone			
10.30-11.00 Coffee break			
11.00 Computer Progress and Industrial Trend Ses.Org.: P.Binko Chairm.: P.Binko Room: Salone			
13.00-14.30 Lunch			
14.30	14.00	14.30	14.30
(V) Space ExperimentsII Ses.Org.:S.Volontè Chairm.: M.Salamon Room: Salone	(VI) Astroparticle Exper. Ses.Org.:Capone, Waltham Chairm.:A.Capone Room: Sala Ovale	(VII) Tracker II Ses.Org.: K.Freudenreich Chairm.: W.Braunschweig Room: Sala Bacco	(VIII) Homog. Cal. Ses.Org.:E.Longo Chairm.: E.Longo Room: Sala Musica
16.00-16.30 Coffee break			
16.30	16.30	16.30	16.30
session continuation	session continuation	session continuation	session continuation
18.00	18.00	18.00	18.00
18.00 Open session on Experimental results in Accelerator Developm.			
18.40			
18.40 Adjourn			



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## ICATPP Conferences

Tuesday 7

**plenary sessions: 8.30 - 13.00**

8.30-10.30 plenary session on High Energy Physics Experiments (Chairman: L.Price, ANL)

session organizer: L.Price, ANL

**room: Salone**

M. Punturo (INFN, Perugia): The VIRGO Gravitational Radiation Detector

M. Goodman (Argonne National Laboratory): Future Neutrino Detectors

R. Rossin (INFN, Padova): The CDF Silicon Vertex Detector for Run II

10.30 - 11.00 coffee break

11.00-13.00 plenary session on Computing Progress and Industrial Trend (Chairman: P.Binko,

Observatoire de Geneve and Synspace)

session organizer: P.Binko, Observatoire de Geneve and Synspace

**room: Salone**

M. Beck (INTEGRAL Science Data Centre): Software Process of INTEGRAL Space

M.G.Pia (INFN-Genoa): Distributed Processing, MonteCarlo, and CAT-interfaces for Medical Treatment Plans



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## ICATPP Conferences

Tuesday 7

**parallel sessions: 14.30 - 18.00**

parallel session V on Space Experiments II (Chairman: M. Salamon, NASA HQ)

session organizer: S.Volontè, HQ ESA

**room: Salone**

R. Battiston (Perugia): The Alpha Magnetic Spectrometer  
C. Sbarra (Bologna): Simulation of the fine mesh photomultipliers in the TOF of AMS-2  
A. Bortoloni (Rome1): The AMS-2 TRD for International Space Station

16.00 - 16.30 coffee break

P. Rapagnani (Rome1): Performance of the AMS-2 TRD  
M. Boscherini (Siegen): The Time-of-Flight system for the space experiment PAMELA  
L. Girard (Annecy): The electromagnetic calorimeter of AMS

parallel session VI on Astroparticle Physics Experiments (Chairman: C.Waltham, UBC, Vancouver)

session organizers: C.Waltham, University of British Columbia, Vancouver and A.Capone, Rome1

**room: Sala Ovale: NOTE this session will start at 14.00**

D. Fargion (Roma): Horizontal-Upward Ultra High Energy Particle-Neutrino Showers observed by High Altitude AirShowers (on Mounts, Planes and Satellites)  
M. Gervasi (Milano): A normalization procedure for Creme96 spectra  
R. Brugnera (Padova): OPERA: an appearance experiment to search for  $\nu_\mu - \nu_\tau$  oscillations in the CNGS beam  
S. Ventura (Padova): Readout and Data Acquisition of the Icarus T600 detector  
P. Bobik (Milano): Solar modulation models: a comparison through a 2D stochastic simulation  
E. Pasca (Firenze): Low temperature properties of NTD Ge: best choice for CUORE experiment

16.00 - 16.30 coffee break

parallel session VI on Astroparticle Physics Experiments (Chairman: A.Capone, Roma1)

D. Bastieri (Padova): Gamma Ray Astronomy Above 30 GeV with the MAGIC Telescope.  
J. P. Schuller (Saclay, Roma): ANTARES status report  
M. Bonori (Roma): Read-out, transmission and Data Acquisition electronics for NEMO  
L. Niedermeier (München): Scintillator Purification by Silica Gel Chromatography in the context of Low Counting Rate Experiments  
Pavel Cermak (Prague): Experiment TGV II



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## ICATPP Conferences

parallel session VII on Tracker II (Chairman: W.Braunschweig, Aachen)  
session organizer: K.Freudenreich, ETHZ

**room: Sala Bacco**

S. Chouridou (CERN): Quality Assurance and Integr. of ATLAS Semic. Tracker  
Joleen Pater (Univ. Manchester): The ATLAS SCT system test  
D. Kotlinski (PSI Villigen): The CMS Pixel Detector  
G. Sguazzoni (INFN Pisa): The CMS Silicon Strip Tracker

16.00 - 16.30 coffee break

S. Koenig (RWTH Aachen): The CMS Tracker Alignment System  
K. Klein (RWTH Aachen): The CMS Silicon Strip Tracker: System Tests and Test Beam Results  
M. Winter (IReS Strasbourg): Vertexing based on high precision, thin CMOS sensors  
G. Ambrosi (INFN Perugia): The AMS2 Experiment and the AMS2 Tracker

parallel session VIII on Homogeneous Calorimeters (Chairman: E.Longo, Rome1)

session organizers: E.Longo, Rome1

**room: Musica**

A. Giuliani (Insubria): Low Temperature Detectors: State Of The Art  
P. Govoni (Milano Bicocca): Performance of the cooling system of ECAL CMS  
I. Britvich (CERN): APD screening for the CMS ECAL

16.00 - 16.30 coffee break

J. Yarba (Fermilab, Batavia, USA): The Electromagnetic Calorimeter of the BTeV Experiment  
M. Ryan (Imperial College, London, UK): Uniformisation of Lead Tungstate Crystals for the CMS Electromagnetic Calorimeter Endcaps  
R. Paramatti (Roma La Sapienza): The calibration of ECAL CMS

At 18.00 up to 18.40

Open Session on Experimental Results on Accelerator Developments (Chairman: R.Ruchti, University of Notre Dame)

session organizer: R.Ruchti, University of Notre Dame

**room: Salone**

S. Myers, CERN: Status of the LHC



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## ICATPP Conferences

W E D N E S D A Y 8			
8.30 New Detectors Ses.Org.:A.Breskin Chairm.N.Nappi Room: Salone			
10.30-11.00 Coffee break			
11.00 Astroparticle Exper. Ses.Org.:Capone, Waltham Chairm.:A.Capone Room: Salone			
13.00-14.30 Lunch			
14.30  (IX) Tracker III Ses.Org.: K.Freudenreich Chairm.: P.Weilhammer Room: Salone	14.30  (X) Medical App. Instr. Ses.Org.:S.Pospisil Chairm.: :S.Pospisil Room: Sala Ovale	14.30  (XI) Particle Identification Ses.Org.:E.Nappi Chairm.: E.Nappi Room: Sala Bacco	14.30  (XII) Software Applications Ses.Org.:S.Giani Chairm.:S.Giani Room: Sala Musica
16.00-16.30 Coffee break			
16.30  session continuation	16.30  session continuation	16.30  session continuation	16.30  session continuation
18.00  Open session on Experimental results in Accelerator Developm.			
18.40  18.40 Adjourn			



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## ICATPP Conferences

Wednesday 8

plenary sessions: 8.30 - 13.00

8.30-10.30 plenary session: on *New Detectors and Particle Identification* (Chairman: E. Nappi, INFN-Bari)

session organizers: A.Breskin, Weizmann and E. Nappi, INFN-Bari

**room: Salone**

R. Ruchti (Univ. of Notre Dame): Scintillators and wavelength shifters for detection of ionizing radiation

M. Hauschild (CERN, Geneva): Particle identification techniques using  $dE/dx$  energy loss measurements

10.30 - 11.00 coffee break

11.00-13.00 plenary session on *Astroparticle Physics Experiments* (Chairman: A.Capone, Rome1)

session organizers : C.Waltham, UBC, Vancouver and A.Capone, Rome1

**room: Salone**

N. Spooner (Sheffield): Dark Matter Detection (preliminary title)

J. Pinfold (Alberta): The NALTA Project a North American Network of Sparse Very Large Area Air Shower Arrays

K. Hanson (Madison): AMANDA status report (preliminary title)

J. Vandenbroucke (Berkeley): High energy neutrino acoustic detection in the ocean (preliminary title)

D. Seckel (Newark): High energy astrophysical neutrinos radio detection: RICE and ANITA status report



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## ICATPP Conferences

Wednesday 8

parallel sessions: 14.30 - 18.00

parallel session IX on Tracker III (Chairman: P. Weilhammer, CERN)

session organizer: K.Freudenreich, ETHZ

**room: Salone**

- M. Brigida (INFN Bari): Simulation of the LAT Silicon Tracker
- C. Kourkoumelis (Univ. Athens): ATLAS muon chamber construction in Greece and alignment
- S. Schuh (CERN): X-ray Tomography for quality control of ATLAS Monitored Drift Tube Chambers
- M. Ishino (ICEPP Tokyo): The construction status and quality assurance for the muon trigger-chamber in the ATLAS endcap region

16.00 - 16.30 coffee break

- F. Petrucci(INFN Roma3): Tracking performance of the MDT detectors of the ATLAS muon spectrometer
- V. Monaco (INFN Torino): The CMS muon system
- A. Meneguzzi (INFN Padova): Validation and Performance of the CMS Barrel muon drift tube chamber with Cosmic Rays
- S. Roth (RWTH Aachen): Study of GEM Structures for a TPC Readout

parallel session XI on Medical Application Instrumentation (Chairman: S.Pospisil, CTU Prague)

session organizer: S.Pospisil, CTU Prague

**room: Sala Ovale**

- M. Chamizo LLatas (Univerzity of Geneva): 3D Brain PET with Hybrid Photon Detectors
- T. Holy (IEAP CTU Prague): Neutron Tomography with Single Neutron Counting Pixel Device
- G. Llosa (IFC Valencia): First Results in the Development of a Compton Probe Prototype for Prostate Imaging

16.00 - 16.30 coffee break

- K. Blazek (Crytur Turnov): High Resolution X-Ray Imaging CCD Camera with YAG:Ce Scintillating Screen (preliminary title)



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## ICATPP Conferences

A. Czermak (INP Krakow): Data Acquisition System SUCIMA Imager

parallel session XI on Particle Identification (Chairman: E.Nappi, INFN-Bari)

session organizer: E.Nappi, INFN-Bari

**room: Sala Bacco**

J. P. Wessels (University of Münster, Germany): The ALICE Transition Radiation Detector

H. Bichsel (CENPA University of Washington, USA): Particle identification at STAR-TPC with ionization measurements

M. Bonesini (INFN-Milano): Review of recent techniques of TOF detectors

16.00 - 16.30 coffee break

V. Mitsou (CERN, Geneva): The ATLAS Transition Radiation Tracker

G. M. Dallavalle (INFN, Bologna, Italy): The CMS Muon Trigger

M. Biglietti (INFN, Napoli, Italy): Muon Identification and Combined Reconstruction for the ATLAS Detector at CERN-LHC

D. Di Bari (INFN-Bari): The HMPID detector for high momentum particle identification in ALICE1

parallel session XII on Software Applications (Chairman: S.Giani, CERN)

session organizer: S.Giani, CERN

**room: Sala Musica**

S.Sadilov (Saratov University): Linux in HEP: OS, Networking, Middleware, SW Development Tools, Applications

P.Cirrone (LNS-INFN): HadronTherapy Medical Applications

16.00 - 16.30 coffee break

T. Pettersson (CERN): EDMS for LHC Engineering

R. Tsenov (Sofia University): Data-Base MySQL Applications for DST-like Physics Analysis

B.Duechting and K.Mohan (Oracle): Building Highly Scalable Mid-Tier Applications with the Oracle C++ Call Interface



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## ICATPP Conferences

At 18.00 up to 18.40

Open Session on Experimental Results on Accelerator Developments (Chairman: R.Ruchti, University of Notre Dame)

session organizer: R.Ruchti, University of Notre Dame

**room: Salone**

K. Gollwitzer (Fermilab): Fermilab Run 2 Accelerator Status and Planning



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## ICATPP Conferences

T H U R S D A Y 9			
8.30 Radioth.&Med.Imag. Ses.Org.:T.J.Ruth Chairm.: T.J.Ruth Room: Salone			
10.30-11.00 Coffee break			
11.00 Astroparticle Exper. Ses.Org.:Capone, Waltham Chairm.:C.Waltham Room: Salone			
13.00-14.30 Lunch			
14.30 (XIII) Radioth.&Med.Imag. Ses.Org.:T.J.Ruth Chairm.: T.J.Ruth Room: Salone	14.30 (XIV) New Detectors Ses.Org.: A. Breskin Chairm.: A. Breskin Room: Sala Ovale	14.30 (XV) Information Technol. Ses.Org.: VanLingen Chairm.: VanLingen Room: Sala Bacco	14.00 (XVI) Radiation Damage Ses.Org.:S.Baccaro Chairm.: S.Baccaro Room: Sala Musica
16.00-16.30 Coffee break			
16.30 session continuation	16.30 session continuation	16.30 session continuation	16.30 session continuation
18.00 Open session on Experimental results in Accelerator Developm.			
18.40 18.40 Adjourn			



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## ICATPP Conferences

Thursday 9

**plenary session : 8.30 - 10.30**

8.30-10.30 plenary session: on Radiotherapy and Medical Imaging (Chairman: T.J.Ruth, TRIUMF)

session organizer: T.J.Ruth, TRIUMF

**room: Salone**

- V. Sossi (UBC): Resolution and sensitivity in positron emission tomography imaging: new frontiers
- G. Hutchins (U. Indiana): Small Animal PET Imaging: Physical Limitations and System Design Considerations
- V. O'Shea (Glasgow University): 3D-Radiation Imaging Detectors

10.30 - 11.00 coffee break

11.00-13.00 plenary session on Astroparticle Physics Experiments (Chairman: C.Waltham, UBC, Vancouver)

session organizers: C.Waltham, UBC, Vancouver and A.Capone, Rome1

**room: Salone**

- R. Belli (Rome2): The DAMA/NaI results on WIMP annual modulation signature at Gran Sasso
- A. Osipowicz (Fulda): Searching for sub-eV neutrino masses: the KATRIN experiment
- A. Poon (Berkeley) - SNO results
- A. Ianni (LNGS): Status of the Borexino experiment and of its physics expectations



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## ICATPP Conferences

Thursday 9

parallel sessions: 14.30 - 18.00

parallel session XIII on Radiotherapy and Medical Imaging (Chairman: T.J.Ruth, TRIUMF)

session organizer: T.J.Ruth, TRIUMF

**room: Salone**

M. Bonardi (Universita' degli Studi and INFN): Copper-64 Production Studies With Target By Deuterons Up To 19 Mev And Protons Up To 140 Mev

D. Phillips (LANL): The New 100 MeV Proton Beam Line for Radioisotope Production at Los Alamos National Laboratory

16.00 - 16.30 coffee break

H. Moore (): Photon Production of Radioisotopes

S. Buono (Advanced Accelerator Applications, Thoiry): Adiabatic Resonance Crossing for Accelerator Production of Neutron-Rich Radioisotopes

parallel session XIV on New Detectors (Chairman: E. Nappi, INFN-Bari)

session organizer: A.Breskin, Weizman

**room: Sala Ovale**

S. Mersi (Univ. of Florence): Identification of charge collection limiting centers in detector-grade CVD diamond

I. Johnson (Zurich University): Detection of antihydrogen annihilations with Si-microstrip and pure CsI detector

F. Loparco (INFN, Bari, Italy): Performance of the Silicon TRD (SiTRD): beam test and simulation results.

H. Sipila (Metorex International Oy): Background phenomena and their elimination in gas-filled detectors

16.00 - 16.30 coffee break

A. Georgobiani (P.N. Lebedev Physical Institute of RAS): p-type ZnO:As obtained by ion implantation of As<sup>+</sup> with post-implantation annealing in O-radicals

M. Pedretti (Univ. of Insubria): Insubria-Florence development of a 10 m reactive bolometer for detection of rare events



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## ICATPP Conferences

- G. Landi (Univ. of Florence and INFN): The center of gravity: properties and simulations of the algorithm  
G. Ruggiero (CERN): Edgeless Silicon detectors for the TOTEM experiment

*parallel session XV on Radiation Damage (Chairman: S.Baccaro, ENEA-Rome)*

*session organizer: S.Baccaro, ENEA-Rome*

**room: Sala Bacco: NOTE this session will start at 14.00**

- A. Peisert (CERN): Development of radiation hard Si sensors for the LHC  
D. Raspigo (INFN Cagliari): Operation of triple-GEM detectors with fast gas mixtures  
P. Hobson (Brunel University Uxbridge): Evaluating the gamma and neutron radiation tolerance of Vacuum PhotoTriodes for the Endcap Calorimeter of the Compact Muon Solenoid  
A. Favalli (INFN – Milan): Radiation Effects on Bipolar and MOS Transistors made in BICMOS Technology  
A. Cecilia (ENEA-Casaccia):  $\text{REAlO}_3:\text{Ce}^{3+}$  (RE=Y,Lu) scintillators radiation damage, spontaneous and photo-stimulated recovery after  $\gamma$  irradiation

16.00 - 16.30 coffee break

- M. Manghisoni (Univ. of Pavia): X-ray effects on the noise performances of 0.18 and 0.25  $\mu\text{m}$  CMOS processes for front-end applications  
K.K. Gan (Ohio State Univ.): Radiation-hard ASICs for Optical Data Transmission in the ATLAS Pixel Detector  
M. Huhtinen (CERN): First results on radiation damage in  $\text{PbWO}_4$  crystals exposed to a 20 GeV/c proton beam.  
G. Grieco (CAEN): EASY- an Embedded Assembly power supply SYstem for LHC experiments

*parallel session XVI on Information Technology (Chairman: F.Van Lingen, California Institute of Technology)*

*session organizer: F.Van Lingen, California Institute of Technology*

**room: Sala Musica**

- C. Steenberg (Caltech): WEB services  
R. Gerhards (DESY): Overview on Parallelism and Distributed Computing

16.00 - 16.30 coffee break

- M. Boschini (CILEA and INFN-Milano): AMS-02 Italian Data Transfer System



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## ICATPP Conferences

C.Arviset (ESA): ESA RSSD Scientific Archives

P.Binko (Synspace): INTEGRAL data management requirements from an ESA contractor perspective

At 18.00 up to 18.40

Open Session on Experimental Results on Accelerator Developments (Chairman: R.Ruchti, University of Notre Dame)

session organizer: R.Ruchti, University of Notre Dame

**room: Salone**

K. Yokoya (KEK): Linear Collider, Warm Technology



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## ICATPP Conferences

FRIDAY 10	
8.30	Radiotherapy & Med.Img. Ses.Org.: T.J.Ruth Chairm.: T.J.Ruth Room: Salone
10.30-11.00	Coffee break
11.00	session continuation
12.40	Final Remarks



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## ICATPP Conferences

Friday 10

**plenary session: 8.30-13.30**

8.30-12.40 plenary session on Radiotherapy and Medical Imaging (Chairman: T.J.Ruth, TRIUMF)

session organizer: T.J.Ruth, TRIUMF

**room: Salone**

W. Maciszewski (The Andrzej Soltan Institute for Nuclear Studies): Particle Accelerators for Radiotherapy. Present Status and Future

U. Oelfke (Heidelberg): Title: Intensity modulated radiation therapy with high energy photon and hadron beams

M. de Felici; (INFN-OGG): EGS4 Monte Carlo study of a MOSFET detector response in the case of x-ray microbeams radiation therapy

**10.30 - 11.00 coffee break**

R.-H. Menk (Sincrotrone Trieste): Imaging with Synchrotron Radiation

C. Christensen (Saskatoon): Canadian Synchrotron Light Source

D.B. Crosetto (3D-Computing, Inc. Texas): Development of an Innovative Three-dimensional Complete Body Screening Device – 3D-CBS.

12.40-13.00 plenaryfinal session (Chairman: T.J.Ruth, TRIUMF)

**room: Salone**

R. Ruchti (Univ. of Notre Dame): Final Remarks

The Article Committee

has been set to follow the article submission, review and publication in the Conference Proceedings:

E.Borchi, INFN and University of Florence

C.Leroy, University of Montreal

P.G.Rancoita, INFN-Milano