Positrons in Astrophysics

preliminary workshop program (V2.2)

PvB / 9.3.2012

	Monday, March 19, 2012	Tuesday, March 20, 2012	Wednesday, March 21, 2012	Thursday, March 22, 2012	Friday, March 23, 2012
08:30		Welcome - Introduction	**Theory of low-energy positron-matter interactions** Gleb Gribakin (Queen's U. Belfast)	**Observation of Galactic e-e+ Annihilation Radiation** Roland Diehl (MPE, Garching)	**Positron and Positronium interactions with condensed matter** Paul Coleman (University of Bath)
08:45		**Direct detection of Cosmic Positrons** Mirko Boezio (INFN Trieste)			
09:00					
09:15			Bound states of positron with nitrile species … Masanori Tachikawa	Can e+ from Sgr A* produce the 511 keV in the gal.bulge? P. Jean	Positronium form., cooling and emission from porous silica R.S. Brusa
09:30		Positron and Antiproton Measurements in CR w. PAMELA Emiliano Mocchiutti	Close-coupling approach to positron-atom collisions Igor Bray	INTEGRAL search for 511 keV emission line from XRB G. De Cesare	Positron beam POSH: Positronium emission from oxides Stephan Eijt
09:45		Anisotropy studies in cosmic ray e/-e+ flux with PAMELA Ugo Giaccari			
10:00		Cosmic-Ray Positron Measurement with the Fermi-LAT Warit Mitthumsiri	Implications of Feshbach resonances for mol. annihilation Cliff Surko	The 511 keV sky as seen by INTEGRAL, CGRO, SMM Gerry Skinner	Application of e+ annihilation lifetime spectroscopy … Toshio Hyodo
10:15					
10:30			**Antimatter search in Cosmic Rays** Roberto Battiston (AMS/ INFN)	**Positrons and antiprotons from dark matter** Pierre Salati (LAPTH, Annecy)	A direct observation of e+ with an astrophysics instrument Michael S. Briggs
10:45		**Positron and Positronium scattering and annihilation in atomic and molecular systems** Mike Charlton (Swansea Uni.)			
11:00					Runaway positrons in magnetized plasmas Tünde Fülöp
11:15			Probing the CR positron/electron ratio at the TeV regime Pierre Colin	Interacting dark matter contribution to the Galactic 511 keV Aaron C. Vincent	Annihilation Radiation in Solar Flares and Supernova Charles Dermer
11:30		Recent experiments on positronium negative ions Y. Nagashima			
11:45		Collisions of e+ and Positronium with Atoms & Molecules Simon Brawley	A Novel EM Calorimeter for a Balloon Borne Spectrometer Alexander Howard	A local contribution to the Gal 511 keV annihilation radiatn. Nidhal Guessoum	e+ science with the Soft Gamma-ray Det. on ASTRO-H Hirokazu Odaka
16:30		**Astrophysical sources of Galactic positrons** Nikos Prantzos (IAP, Paris)	**Antimatter atoms** Niels Madsen (ALPHA+Swansea U.)	**excursion Schilthorn**	**Why does the Universe contain matter?** John Ellis (CERN)
16:45					
17:00					
17:15		Positron generation in magnetospheres of neutron stars Ya.N. Istomin	Positron and positronium for the GBAR experiment Laszlo Liszkay		
17:30	registration open at the Hotel Alpin Palace	Wide-Band Spectra of Magnetar Persist. & Burst Emission Y. E. Nakagawa	Calculations of antihydrogen loss from collisions with H Svante Jonsell		Broad band Laue lenses for the 511 ke annihilation line Filippo Frontera
17:45					
18:00		e-e+ plasmas from dark matter annihil & cosmic structures Sergio Colafrancesco	AEGIS: testing the WEP with a pulsed cold beam of anti-H Michael Doser		Curved crystals for a Laue lens to focus the 511-keV line V. Guidi
18:15					NCT Goals and Performance on Mapping Positron Alexander Lowell
18:30	**Welcome Aperitif** 18h30 - 20h	e+ annihilation on atomic core electrons & in positive ions. Dermot G. Green	The AX-PET experiment for an axial PET Chiara Casella	**Conference Dinner**	What's next in the observation of Galactic e+ Annihilation? Peter von Ballmoos
18:45					
19:00		Positron annihilation in a superstrong magnetic field. Jerzy Dryzek	A Scintillation-Solid State Detector in Visible and IR Region Anatoly Maltsev		
19:15		Plans for a laboratory electron-positron plasma experiment Thomas Sunn Pedersen	Positronium: our spy to the Mirror World. Paolo Crivelli		
19:30					