

Program HEPRO Workshop, September 24-28, 2007

Monday 24.09.

8:15-9:15	Registration Hamilton Building, Trinity College Dublin (TCD)
9:15-9:30	Welcome Address
9:30-9:55	N. Gehrels: Gamma Ray Burst Discoveries with SWIFT
9:55-10:20	P. Meszaros: Gamma Ray Bursts as VHE-UHE sources
10:20-10:35	S. Vergani: The interplay of the prompt and afterglow emission in GRB 060418
10:35-11:10	COFFEE BREAK
11:10-11:35	D. Eichler: What is the Primary Energy Output in GRBs
11:35-11:50	L. Hanlon: Properties of gamma-ray bursts observed by INTEGRAL
11:50-12:05	A. Pozanenko: Late time afterglow re-brightening of GRB030329: model and observations
12:05-12:20	S. Inoue: High Energy Emission from Gamma-Ray Bursts
12:20-12:35	S. Moiseenko: Outflows from magnetorotational supernovae
12:35-14:00	LUNCH BREAK
14:00-14:25	S. Komissarov: Magnetar-energized supernova explosions and GRBs
14:25-14:50	J. Arons: Beam Filamentation Instability of Interacting Current Sheets in Striped Relativistic Winds: The Origin of Low Sigma?
14:50-15:15	A. Melatos: Energy transport and instabilities in wave-like relativistic outflows
15:15-15:30	G. Fossati: Challenges to the model for blazar emission from X-ray/TeV simultaneous observations
15:30-16:00	COFFEE BREAK
16:00-16:25	B. Giebels: Very High Energy gamma-ray observations of Blazars
16:25-16:40	R. Buehler: Unique VHE flares of PKS 2155-304 during the 2006 H.E.S.S. campaign
16:40-16:55	L. Costamante: Simultaneous X-ray/TeV observations of an exceptional flare of PKS 2155-304 in July 2006
16:55-17:20	A. Fabian: Implications of very rapid TeV variability in blazars

- 17:20-17:45 L. Maraschi: The spectral sequence of blazar SEDs revisited
- 17:45-18:00 T. Takahashi: Suzaku Satellites and Observations of High Energy Jet Sources

18:30 WELCOME RECEPTION (Atrium, Dining Hall TCD)

Tuesday 25.09.

- 9:00-9:25 A. Celotti: Bulk Comptonization spectra in blazars
- 9:25-9:50 R. Sambruna: Chandra Jets in radio-loud AGN
- 9:50-10:05 D. Schwartz: Chandra X-ray Observations of PKS 1055-201
- 10:05-10:20 Y. Uchiyama: Multiwavelength analysis of the large-scale emission in quasar jets
- 10:20-10:35 J. Kataoka: Suzaku View of Powerful Gamma-ray Quasars
- 10:35-11:05 COFFEE BREAK
- 11:05-11:30 G. Ghisellini: Emission and power of blazar jets
- 11:30-11:45 G. Bicknell: Linkage between Accretion Disks and Blazars
- 11:45-12:00 S. Wagner: Scaling relations for ultrafast gamma-ray flares in Blazars
- 12:00-12:15 M. Boettcher: The WEBT Campaign on 3C279 in 2006
- 12:15-12:30 M. Raue: The new distant TeV blazars: pushing the VHE gamma-ray horizon
- 12:30-14:00 LUNCH BREAK
- 14:00-14:25 K. Blundell: Outflows from radio-quiet quasars
- 14:25-14:50 D. Gabuzda: The Magnetic Field Structures of AGN Jets and Possible Connections to their High-Energy Emission
- 14:50-15:05 P. Kharb: Magnetic Fields in Blazar Parsec-scale jets - Possible Connection to Spin Rates of Central Black Holes?
- 15:05-15:20 L. Stawarz: Radio Loudness of AGNs: Host Galaxy Morphology and the Spin Paradigm
- 15:20-15:35 K. Steenbrugge: Detection of a relic counterjet in Cygnus A
- 15:35-16:05 COFFEE BREAK
- 16:05-16:20 J. Kirk: Relativistic shocks in very high brightness temperature sources

- 16:20-16:35 F. Rieger: Energetic particle acceleration close to the supermassive black hole: the case of M87
- 16:35-17:00 R. Schlickeiser: Hadronic or Primary leptonic origin of high energy emission in compact luminous sources: Clues from spectra + multiwavelength light curves
- 17:00-17:25 A. Levinson: Dissipation and Collimation of Relativistic Jets
- 17:25-17:40 B. Stern: Gamma-ray emission of blazars as a supercritical process
- 17:40-18:00 J. Poutanen: Photon breeding in relativistic jet of blazars: astrophysical implications

Wednesday 26.09.

- 9:00-9:25 A. Mastichiadis: Compton dragged supercritical piles: The prompt and afterglow scenario
- 9:25-9:40 J. Granot: Opacity Build-up in Impulsive Relativistic Sources
- 9:40-10:05 F. Takahara: A Wien fireball model of relativistic outflows in AGNs
- 10:05-10:20 A. Dorodnitsyn: Absorption lines near compact objects. Gravitationally distorted P-Cygni profiles.
- 10:20-10:50 COFFEE BREAK
- 10:50-11:15 N. Vlahakis: MHD modeling of relativistic outflows
- 11:15-11:30 M. Barkov: Magnetic acceleration of relativistic jets
- 11:30-11:55 C. Fendt: Relativistic MHD simulations of jet formation
- 11:55-12:10 J. Gracia: MHD models and synthetic synchrotron maps for the jet of M87
- 12:10-12:35 G.S. Bisnovatyi-Kogan: Jet confinement by magneto-torsional oscillations
- 12:35-14:00 LUNCH BREAK
- 14:00- CONFERENCE EXCURSION (Boyne Valley, Newgrange, Slane Village)

Thursday 27.09.

- 9:00-9:25 G. Pelletier: New developments in Fermi acceleration at Relativistic Shocks, UHECRs generation and their possible gamma-ray signature
- 9:25-9:50 V. Kocharovsky: Self-consistent current sheets and filaments in relativistic astrophysical plasma

9:50-10:05	K-I. Nishikawa: Particle acceleration, magnetic field generation, and associated emission in collisionless relativistic jets
10:05-10:30	A. Spitkovsky: The Physics of Relativistic Collisionless Shocks
10:30-11:00	COFFEE BREAK
11:00-11:25	A. Koenigl: Oscillatory Radiative Instability of Hydromagnetic Relativistic Shocks
11:25-11:50	A. Bell: Cosmic rays, magnetic field, spirals, cavities and beams
11:50-12:05	B. Reville: Ion neutral damping of the non-resonant current driven instability
12:05-12:20	M. Riquelme: Generation of Magnetic Fields by Cosmic Ray Streaming Near Shocks
12:20-14:00	LUNCH BREAK
14:00-14:15	P. Chang: The Long Term Evolution of Magnetic Turbulence in e ⁺ e ⁻ Shocks
14:15-14:30	J. Tammi: Wave transmission and hard particle spectra from parallel shocks
14:30-14:45	P. Dempsey: Effect of Radiative Losses on Particle Acceleration at Relativistic Shocks
14:45-15:10	M. Ostrowski: Particle acceleration in relativistic jets - shocks, shear layers...
15:10-15:30	E. Derishev: A new mechanism for particle acceleration in relativistic jets
15:30-16:00	COFFEE BREAK
16:00-16:25	J. M. Paredes: VHE Gamma Rays from Galactic Binary Systems
16:25-16:40	J. Rico: Observations of microquasar candidates with the MAGIC telescope in the TeV domain
16:40-16:55	V. Bosch-Ramon: On the X-ray/TeV connection in microquasars
16:55-17:10	D. Khangulyan: On the physics of the VHE emission from LS 5039
17:10-17:25	M. Chernyakova: Multiwavelength properties of gamma loud binary systems
17:25-17:40	G.E. Romero: LS I +61 303: microquasar or not microquasar?
17:40-17:55	H. Marshall: Modeling the SS 433 Jet Bends
19:30-	CONFERENCE DINNER (Dining Hall, TCD)

Friday 28.09.

9:15-9:40	V. Beskin: Effective particle acceleration in relativistic and nonrelativistic outflows
9:40-10:05	S. Heinz: Energetics and Particle Content of Microquasar Jets
10:05-10:20	F. Alouani Bibi: Impact of supersonic AGN jet on non homogeneous intracluster medium
10:20-10:35	M. Kaufman-Bernado: Magnetic Field Upper Limits for Jet Formation
10:35-11:05	COFFEE BREAK
11:05-11:20	E. Koerding: Exploring the disc/jet connection of accretion white dwarfs and black holes
11:20-11:35	A. Lutovinov: Structure of the Galaxy in Hard X-rays
11:35-11:50	J. Petri: Magnetic reconnection at the termination shock in a striped pulsar wind
11:50	WORKSHOP SUMMARY

POSTERS:

J.C. Algaba	Investigations of Correlations between the Radio and Optical Polarization of AGN
S.V. Bogovalov	Interaction of winds in binary system PSR 1259-63/SS2883
C. Boisson	Broad band X-ray spectra of the Seyfert 1 Mkn 841
P. Bordas	Non-thermal emission from microquasar jets interacting with their surroundings
V. Bosch-Ramon	Studying the interaction between microquasar jets and their environments
N. Camus	MHD origin of the Crab Nebula wisps
C. Carey	MHD kink instability driven by differential rotation
P. Cassaro	The engine of outflowing in AGN: the role of turbulent physical viscosity
P. Chang	Long Term Evolution of Magnetic Turbulence in Relativistic e ⁺ e ⁻ Collisionless Shocks
Y. Istomin	A two-step mechanism for particle acceleration in the magnetosphere of accreting black holes
S. Kelner	On the intrinsic luminosity and energy budget of relativistically beamed sources
J.P. Lenain	SSC scenario for TeV emission from non-blazar AGNs
K. Moraitis	Particle acceleration and gamma-ray emission from AGN jets
G. Murphy	Magnetic Reconnection Phenomena
S. O'Sullivan	Parsec-scale Investigation of the Magnetic Field Structure of Several AGN Jets.

J. Petri	Pulsed high-energy emission and phase-resolved spectral variability in the pulsar striped wind model
G.E. Romero	Models for gamma-ray production in low-mass microquasars
G.E. Romero	High-energy emission from massive young stellar objects
A.Siemiginowska	X-ray Emission and Broad-Band Spectra of Compact Radio Source
S. Simic	Investigation of element abundances in the surroundings of GRB afterglow
J. Staff	A three-stage model of GRB inner engine activity in the context of accreting quark stars
A. Taylor	High-Energy Neutrinos from Astrophysical Accelerators of Cosmic Ray Nuclei
O. Toropina	MHD simulations of accretion to a magnetized neutron star in the "propeller" regime
S. Vergani	Have all short GRBs an associated host galaxy? The case of GRB 070707
S. Vergani	GRB 070311: a direct link between the prompt emission and the afterglow.
V. Vitrishchak	Multi-frequency Circular Polarization Measurements of the VLBI Cores of AGN
I. Vurm	Electron thermalization and photon emission from compact sources
V. Zabalza	Constraining the orbital variability of LS 5039 through Chandra observations
Z. Zhang	Tests for a new GRB luminosity relation