Scientific Event Report

Research in Astrophysics from Space

E1.6 Black Hole Astrophysics: Observational Evidence of Theoretical

Models

Main Scientific Organizer Chakrabarti, Sandip Kumar

Deputy Organizer Debnath, Dipak

Theoretical Models Chair: Bambi, Cosimo

Date: Fri, Aug 05, 2016. Room: 3B43

E1.6-0001-16 09:30 - 10:00 (solicited)

Tell tale signatures of a Two Component Advective Flow around Black holes Chakrabarti, Sandip Kumar

E1.6-0002-16 (WITHDRAWN) 10:00 - 10:30 (solicited)

From early models to present models

Czerny, Bozena

E1.6-0003-16 10:30 - 10:50

Viscosity parameter values in accretion flows around black holes.

Nagarkoti, Shreeram; Chakrabarti, Sandip Kumar

Chair: Bambi, Cosimo

Date: Fri, Aug 05, 2016. Room: 3B43

E1.6-0004-16 11:30 - 12:00 (solicited)

Emerging pictures on the disk-jet connection from simultaneous multiwavelength observations of black hole X-ray binaries

Sivakoff, Gregory; Tetarenko, Alexandra; Miller-Jones, James; Curran, Peter; Markoff, Sera; Russell, David Team: Jet Acceleration and Collimation Probe Of Transient X-Ray Binaries (JACPOT XRB)

E1.6-0005-16 12:00 - 12:20 (solicited)

A high-resolution view of the 2015 outburst of the black hole X-ray binary V404 Cygni Miller-Jones, James; Sivakoff, Gregory; Tetarenko, Alexandra Team: Jet Acceleration and Collimation Probe

Of Transient X-ray Binaries (JACPOT XRB)

E1.6-0006-16 12:20 - 12:40

Impact of black hole's spin to power the accretion/outflow phenomena

Mukhopadhyay, Banibrata

E1.6-0007-16 12:40 - 13:00

Effects of Photon Bending on the Monte-Carlo Comptonized Spectra of Two Component Advective Flow: A Catalogue of Images

Chatterjee, Arka; Chakrabarti, Sandip Kumar; Ghosh, Himadri

Jets, Outflows, winds and coronae

Chair: Czerny, Bozena

Date: Fri, Aug 05, 2016. Room: 3B43

E1.6-0008-16 14:00 - 14:30 (solicited)

Jets in black-hole binaries

Zdziarski, Andrzej

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E1.6-0009-16 14:30 - 14:50 (solicited)

A jet emission model to probe the dynamics of accretion and ejection coupling in black hole X-ray binaries

Malzac, Julien

E1.6-0010-16 14:50 - 15:10

On the physical origin of AGN outflow driving mechanisms

Ishibashi, Wako

E1.6-0011-16 15:10 - 15:30

The Instability in Accretion Flows: GvMRI

Yardimci, Melis; Devlen, Ebru

Chair: Czerny, Bozena

Date: Fri, Aug 05, 2016. Room: 3B43

E1.6-0012-16 17:00 - 17:30 (solicited)

Testing black holes via X-ray reflection spectroscopy

Bambi, Cosimo; Cardenas-Avendano, Alejandro; Nampalliwar, Sourabh

E1.6-0013-16 17:30 - 17:55 (solicited)

TCAF model in XSPEC : An efficient tool to understand accretion flow dynamics around black holes

Debnath, Dipak; Chakrabarti, Sandip Kumar; Mondal, Santanu; Pal, Partha Sarathi; Jana, Arghajit; Molla, Aslam Ali; Chatterjee, Debjit

E1.6-0014-16 17:55 - 18:10

Hard state of SWIFT J1753.5-0127 during 2005 outburst

Jana, Arghajit; Debnath, Dipak; Chakrabarti, Sandip Kumar; Mondal, Santanu; Molla, Aslam Ali; Chatterjee, Debjit

E1.6-0015-16 18:10 - 18:30

How do accretion discs break?

Dogan, Suzan

Testing models

Chair: Chakrabarti, Sandip Kumar Date: Sat, Aug 06, 2016. Room: 3B43

E1.6-0016-16 09:30 - 10:00 (solicited)

Evidences for Black Hole Formation by Complete Stellar Collapse

Mirabel, Igor Felix

E1.6-0017-16 (WITHDRAWN) 10:00 - 10:20

The problems in black hole mass measurements

Czerny, Bozena; Sredzinska, Justyna; You, Bei

E1.6-0018-16 10:20 - 10:40

Estimation of mass of black hole candidate H1743-322 using spectral and timing analysis of 2010 and 2011 outbursts with TCAF and POS models

Molla, Aslam Ali; Chakrabarti, Sandip Kumar; Debnath, Dipak; Mondal, Santanu; Jana, Arghajit; Chatterjee, Debjit

E1.6-0019-16 10:40 - 11:00

2004 outburst of BHC H1743322: Analysis of spectral and timing properties using the TCAF Solution

Bhattacharjee, Ayan; Banerjee, Indrani; Banerjee, Anuvab; Debnath, Dipak; Chakrabarti, Sandip Kumar

Chair: Chakrabarti, Sandip Kumar Date: Sat, Aug 06, 2016. Room: 3B43

E1.6-0020-16 11:30 - 12:00 (solicited)

The X-ray polarimetric view of astrophysical black holes

Matt, Giorgio

E1.6-0021-16 12:00 - 12:20

Implication of Lag cross over QPO frequency in black hole binaries during outbursts

Dutta, Broja Gopal; Pal, Partha Sarathi; Chakrabarti, Sandip Kumar

E1.6-0022-16 12:20 - 12:40

Signature of Iron line on the spectra of GX 339-4 with TCAF using NuSTAR observation

Mondal, Santanu; Chakrabarti, Sandip Kumar; Debnath, Dipak; Molla, Aslam Ali; Jana, Arghajit; Chatterjee, Debjit

E1.6-0023-16 12:40 - 13:00

Gamma-ray polarization in accreting black holes: the case of XTE J1118+480

Vieyro, Florencia; Romero, Gustavo E.; Chaty, Sylvain

Polarization, timing properties and Black Hole binaries

Chair: Debnath, Dipak

Date: Sat, Aug 06, 2016. Room: 3B43

E1.6-0024-16 14:00 - 14:20

Optical variation of black hole binary systems V616 Mon and Swift J1753.5-0127

Kocak, Dolunay; Yakut, Kadri

E1.6-0025-16 14:20 - 14:40

Dynamics of Magnetic Flux Tubes in an Advective Flow around a Black Hole

Deb, Arnab; Giri, Kinsuk; Chakrabarti, Sandip Kumar

E1.6-0026-16 14:40 - 15:00

Time Evolution of a Rotating Gas Ring around a Black Hole in Presence of Viscosity and Cooling

Giri, Kinsuk

E1.6-0027-16 15:00 - 15:20

Multi-wavelength properties and smbh's masses of the isolated galaxies with active nuclei in the Local Universe

Vavilova, Iryna; Vasylenko, Anatolij; Babyk, Iuri; Pulatova, Nadya

Chair: Debnath, Dipak

Date: Sat, Aug 06, 2016. Room: 3B43

E1.6-0028-16 17:00 - 17:15

Azimuthal Stress and Heat Flux In Radiatively Inefficient Accretion Flows

Devlen, Ebru

E1.6-0029-16 (WITHDRAWN) 17:15 - 17:30

Magnetic massive stars as progenitors of "heavy" stellar-mass black holes Wade, Gregg

E1.6-0030-16 17:30 - 17:45

Particle motion and Penrose processes around rotating regular black hole $Abdujabbarov,\ Ahmadjon$

E1.6-0031-16 17:45 - 18:00

Ultraluminous X-ray Sources in NGC 6946.

Sánchez Cruces, Mónica; Fuentes-Carrera, Isaura L.; Rosado, Margarita

E1.6-0032-16 18:00 - 18:15

The QPO phenomena and their time lags in five ULXs

Qu, Jinlu

E1.6-0033-16 18:15 - 18:30

Simulation of the onset of an outburst in black hole candidates

Roy, Abhishek; Chakrabarti, Sandip Kumar

Poster Program

Author in Attendance: Thursday, 15:30 - 17:00, Poster area: B1 Poster Area

STW = Sunday, Tuesday, Wednesday / TFS = Thursday, Friday, Saturday

TFS-226 E1.6-0036-16

Dichotomy Between Black Hole and Neutron Star Accretion: Effect of Hard Surface

Dhang, Prasun; Sharma, Prateek; Mukhopadhyay, Banibrata

TFS-227 E1.6-0037-16

A pure hydrodynamic origin of accretion disk turbulence

Nath, Sujit Kumar; Mukhopadhyay, Banibrata

TFS-233 E1.6-0041-16

Kinematics of the ionized gas around ultra-luminous X-ray sources in nearby spiral galaxies.

Fuentes-Carrera, Isaura L.; Benitez-Benitez, Claudia; Salinas-Martínez, Alfredo; Cruz-Reyes, Mariana; Sánchez Cruces, Mónica; Rosado, Margarita; Aguilera, Verónica

TFS-237 E1.6-0042-16

Global Time Dependent Solutions of Stochastically Driven Standard Accretion Disks: Development of Hydrodynamical Code

Wani, Naveel; Misra, Ranjeev; Iqbal, Naseer; Maqbool, Bari

TFS-238 E1.6-0043-16

Nonsingular electrodynamics of a rotating black hole moving in an asymptotically uniform magnetic field

Morozova, Viktoriya; Rezzolla, Luciano; Ahmedov, Bobomurat

TFS-239 E1.6-0044-16

Indication for multi-component Gamma-ray spectrum for 1ES0229+200

Mohamed, Mahmoud; Wagner, Stefan

TFS-240 E1.6-0045-16

Resolving spectral components of gamma-bright AGN

Mohamed, Mahmoud; Wagner, Stefan

TFS-241 E1.6-0046-16

Exceptional behaviour of X-ray emitting corona in a Seyfert 1 galaxy 1H 0419 - 577

Pal, Main; Dewangan, Gulab Chand

TFS-242 E1.6-0047-16

Constraining the particle spectrum in blazar jets: importance of the hard X-ray spectrum Sinha, Atreyee; Sahayanathan, Sunder; Chitnis, Varsha

TFS-243 E1.6-0048-16

Optical properties of black holes in the presence of a plasma: The shadow $Abdujabbarov,\ Ahmadjon$

TFS-244 E1.6-0049-16

Evolution of spectral and temporal properties during early phase of 2011 outburst of MAXI J1543-564 with TCAF Solution

Chatterjee, Debjit; Debnath, Dipak; Chakrabarti, Sandip Kumar; Mondal, Santanu; Jana, Arghajit; Molla, Aslam Ali

TFS-247 E1.6-0050-16

 $\begin{array}{l} \textbf{Horizon structure and shadow of rotating Einstein-Born-Infeld black holes} \\ \textbf{Atamurotov, Farruh} \end{array}$

TFS-248 E1.6-0051-16

Time dependent spectrum of an X-ray irradiated accretion disc with stochastic perturbations *Maqbool*, *Bari*; Misra, Ranjeev; Iqbal, Naseer; Wani, Naveel

TFS-249 E1.6-0052-16

Evidence of Two Component Accretion Flows as revealed by time lag properties: Results of Long-Term RXTE/ASM Data Analysis

Ghosh, Arindam; Chakrabarti, Sandip Kumar

TFS-250 E1.6-0053-16

Spectral variation during one quasi-periodic oscillation cycle in the black hole candidate H1743-322

Pal, Partha Sarathi; Debnath, Dipak; Chakrabarti, Sandip Kumar

Poster Program

Author in Attendance: Friday, 15:30 - 17:00, Poster area: B1 Poster Area

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Poster Program

Author in Attendance: Saturday, 15:30 - 17:00, Poster area: B1 Poster Area

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