

Mapping the X-ray Sky with SRG: First Results from eROSITA and ART-XC

Sunday, March 15, 2020 - Friday, March 20, 2020

Garching

Scientific Program

SRG2020 Conference

TUM, Garching, March 16-20, 2020

Scientific Programme

I = Invited
S = Solicited
C = Contributed

Sunday, 15/3

16:00 Registration desk opens
18:00 - 20:00 Reception in the foyer of the conference building

Monday, 16/3

Session I: SRG instruments and Operations

9:00 – 9:20: *P. Predehl*: Welcome and Introduction
9:20 – 9:40: *R. Sunyaev*: SRG Orbital Observatory: scientific goals and recent results (S, 17+3')
9:40 – 10:00: *I. Lomakin*: SRG Status and Operations (S, 17+3')
10:00 – 10:15: *D. Coutinho*: SRG/eROSITA early phase and commissioning operations (S, 13+2')
10:15 – 10:35: *K. Dennerl*: The calibration of eROSITA on SRG (S, 17+3')
10:35 – 10:50: *I. Mereminski*: In-flight calibration of the SRG/ART-XC telescope (S, 13+2')

10:50 – 11:20: *Coffee Break and Poster viewing*

11:20 – 11:40: *J. Wilms*: The eROSITA Near Real Time Analysis (S, 17+3')
11:40 – 12:00: *H. Brunner*: eROSITA data products and data analysis software (S, 17+3')
12:00 – 12:20: *R. Burenin*: Source detection and catalogue construction in SRG/ART-XC sky survey (S, 17+3')
12:20 – 12:35: *S. Molkov*: Timing capabilities of ART-XC and precision of the on-board clock (S, 13+2')
12:35 – 12:50: *M. Freyberg*: The eROSITA Background at L2 (S, 13+2')
12:50 – 13:05: *A. Tkachenko*: Background measurements by the ART-XC detectors near L2 point (S, 13+2')

13:05 – 14:15 *Lunch Break*

Session II: AGN Surveys and the history of accretion

14:15 – 14:45: *R. Hickox*: The cosmic X-ray background and the growth history of black holes (I, 25+5')
14:45 – 15:05: *K. Nandra*: First results on AGN from eFEDS (S, 17+3')
15:05 – 15:25: *M. Gilfanov*: First results of SRG/eROSITA observations of AGN and QSO (S, 17+3')
15:25 – 15:45: *M. Salvato*: Multiwavelength properties of eROSITA point-like sources in the eFEDS

field (S, 17+3')

15:45 – 16:00: *T. Ananna*: Accretion history of AGN: Population synthesis model and photo-z (C, 13+2')

16:00 – 16:15: *A. Meshcheryakov*: Accurate photo-z measurements for X-ray AGNs discovered by SRG/eROSITA in the Lockman Hole field (S, 13+2')

16:15 – 16:45: *Coffee Break and Poster viewing*

16:45 – 17:15: *P. Natarajan*: Tracing the origin of seed black holes in the Universe (I, 25+5')

17:15 – 17:30: *G. Khorunzhev*: An optical identification of the SRG sources of the Lockman Hole PV-phase survey (C, 13+2')

17:30 – 17:45: *C.-T. Chen*: ART-XC NEP survey (S, 13+2')

17:45 – 18:00: *S. Fotoupoulou*: AGN identification with machine-learning methods (C, 13+2')

18:00 – 18:15: *I. Bikmaev*: Optical identifications of SRG X-Ray sources by RTT- 13+2'0 observations (S, 13+2')

Tuesday, 17/3

Session III: Clusters and Cosmology I

9:00 – 9:30: *D. Nagai*: ICM physics: how to use clusters for cosmology (I, 25+5')

9:30 – 9:50: *E. Bulbul*: From eFEDS to the All Sky Survey: Cluster Science and Cosmology with eROSITA (S, 17+3')

9:50 – 10:05: *V. Ghirardini*: Characterization of the X-ray properties of the eFEDS detected Clusters (S, 13+2')

10:05 – 10:20: *M. Klein*: The optical information of eROSITA-detected clusters (S, 13+2')

10:20 – 10:35: *B. Maughan*: Comparing Hydrostatic and Dynamical Masses of Clusters of Galaxies (C, 13+2')

10:35 – 10:50: *D. Nelson*: Simulating clusters and their AGN with IllustrisTNG (C, 13+2')

10:50 – 11:20: *Coffee Break and Posters viewing*

11:20 – 11:50: *B. Benson*: Cluster Surveys and Cosmology with the Sunyaev-Zel'dovich Effect (I, 25+5')

11:50 – 12:05: *M. McDonald*: Unraveling Galaxy Cluster Evolution with Combined SZ & X-ray Surveys (C, 13+2')

12:05 – 12:20: *V. Biffi*: The hot gas at the edge of galaxy clusters and beyond: from simulations to X-ray observations (C, 13+2')

12:20 – 12:35: *F. Mernier*: The chemical history of galaxy clusters, groups, and ellipticals - Advances from previous missions and insights with eROSITA (C, 13+2')

12:35 – 12:50: *A. Botteon*: Unraveling the origin of non-thermal phenomena in merging galaxy clusters with eROSITA, LOFAR, and Planck (C, 13+2')

12:50 – 13:10: *J. Sanders*: The SRG/eROSITA view of the merging clusters Abell 3266 (S, 17+3')

13:10 - 14:20: *Lunch Break*

Session IV: Clusters and Cosmology II

14:20 – 14:50: *R. van Weeren*: The ICM: synergies between radio and X-ray observations of clusters (I, 25+5')

14:50 – 15:10: *T. Reiprich*: Large scale view of the Abell 3391/95 multiple galaxy cluster system (S,

17+3')

15:10 – 15:25: *N. Ota*: SRG/eROSITA spectral analysis of the A3391/95 filament region (S, 13+2')

15:25 – 15:45: *E. Churazov*: The SRG/eROSITA view of the Coma cluster (S, 17+3')

15:45 – 16:00: *N. Lyskova*: The Coma-NGC 4839 merger scenario in the light of new SRG/eROSITA data (S, 13+2')

16:00 – 16:45: *Coffee Break and Posters viewing (longer session)*

16:45 – 17:00: *T. Mroczkowski*: The Atacama Large Aperture Submm Telescope (AtLAST): A widefield, ground-based complement to eROSITA (C, 13+2')

17:00 – 17:15: *Z. Zhu*: X-ray spectroscopy of the outskirts of the Perseus Cluster: a shock front near the virial radius (C, 13+2')

Session V: AGN physics, variability, clustering

17:15 – 17:30: *J. Comparat*: eROSITA AGN simulations and preliminary clustering analysis (S, 13+2')

17:30 – 17:45: *J. Buchner*: Unexpected eROSITA spectra of Active Galactic Nuclei (S, 13+2')

17:45 – 18:00: *T. Boller*: SRG/eROSITA discovery of a new AGN state in 1H0707-49 (S, 13+2')

19:30 for 20:00: Social Dinner in the restaurant: „Der Pschorr“ Viktualienmarkt 15, Munich

Wednesday, 18/3

Session VI: AGN and their host galaxies

9:00 – 9:30: *A. Coil*: The relationship between growing SMBHs and their host galaxies (I, 25+5')

9:30 – 9:45: *A. Pillepich*: X-ray signatures of black hole feedback: theory confronts observations (C, 13+2')

9:45 – 10:00: *J. Silverman*: Structural properties of the host galaxies of eROSITA AGN with HSC (S, 13+2')

10:00 – 10:15: *M. Brusa*: AGN feedback: lessons learned from X-ray Surveys and prospects for eROSITA (S, 13+2')

10:15 – 10:30: *Y. Toba*: eFEDS view of WISE 22 μ m-selected galaxies/AGNs with HSC (S, 13+2')

10:30 – 10:45: *D. Asmus*: The local AGN survey (LASr): Towards a complete census of black hole growth within 100Mpc (C, 13+2')

10:45 – 11:15: *Coffee Break and Posters viewing*

Session VII: X-ray emission from Galaxies

11:15 – 11:45: *B. Lehmer*: X-ray Surveys and the Evolution of Normal Galaxy Emission: Prospects for eROSITA (I, 25+5')

11:45 – 12:00: *A. Hornschemeier*: Surveys of Normal Galaxies at harder X-ray energies with NuSTAR (C, 13+2')

12:00 – 12:15: *V. Anastasopoulou*: XMM-Newton survey of star-forming galaxies in the local Universe: X-ray binary scaling relations (C, 13+2')

12:15 – 12:30: *D. Bomans*: X-ray emission from starburst dwarf galaxies: galactic winds and X-ray binaries (C, 13+2')

12:30 – 12:50: *C. Maitra*: HMXB in the Magellanic Clouds as seen by eROSITA during the Commissioning/Calibration phase (S, 17+3')

12:50 – 13:05: *S. Nakahira*: All-sky X-ray maps with MAXI (C, 13+2')

13:05 - 14:00 Lunch Break - > End of the daily program

Thursday, 19/3

Session VIII: X-ray view of the Milky Way: Stars

9:00 – 9:30: *J. Drake*: The Future of High Energy Stellar Physics (I, 25+5')

9:30 – 9:50: *B. Stelzer*: X-ray emission from ultracool dwarfs (S, 17+3')

9:50 – 10:05: *J. Schmitt*: The stellar content of the eROSITA eFEDS field, (S, 13+2')

10:05 – 10:25: *J. Robrade*: Scanning the Chameleon: the eta Cha cluster seen by eROSITA (S, 17+3')

10:25 – 10:55: *L. Oskinova*: Stars in the eROSITA eyes (I, 25+5')

10:55 – 11:25: Coffee Break and Posters Viewing

Session IX: X-ray view of the Milky Way: SNe and the ISM

11:25 – 11:55: *L. Lopez*: X-ray studies of Supernova remnants (I, 25+5')

11:55 – 12:15: *M. Sasaki*: The Hot Phase of the Interstellar Medium (S, 17+3')

12:15 – 12:35: *R. Krivonos*: X-ray imaging of the supernova remnants with Spectrum-RG (S, 17+3')

12:35 – 12:55: *I. Khabibullin*: The SRG/eROSITA view of the W50/SS433 (S, 17+3')

12:55 - 14:30: Lunch Break and Posters viewing (longer session)

Session X: X-ray view of the Milky Way: Compact Objects

14:30 – 15:00: *T. Maccarone*: Black Hole X-ray Binaries (I, 25+5')

15:00 – 15:15: *V. Grinberg*: Probing the winds of the most massive stars using high mass X-ray binaries (C, 13+2')

15:15 – 15:35: *A. Schwobe*: The eROSITA/XMM-Newton PV campaign on PSR B0656+14 (S, 17+3')

15:35 – 15:50: *T. Prince*: Ultra-compact, double degenerate binaries (C, 13+2')

15:50 – 16:05: *A. Lutovinov*: Study of transient sources with SRG/ART-XC, (S, 13+2')

16:05 – 16:35: Coffee Break

16:35 – 16:55: *K. Postnov*: Binary X-ray source population (S, 17+3')

16:55 – 17:15: *S. Sazonov*: The ART-XC Galactic Bulge Survey (S, 17+3')

17:15 – 17:30: *A. Semena*: The SRG/ART-XC survey of the Galactic Plane fields in the direction to the Norma arm and $l=+20$ (S, 13+2')

17:30 – 17:45: *P. Medvedev*: First results of the SRG/eROSITA Galactic Plane survey at $l=20$ (S, 13+2')

17:45 – 18:00: *D. Russell*: Low-level accretion activity in XRB (C, 13+2')

Friday, 20/3

Session XI: Time domain and multi-messenger astronomy

9:00 – 9:30: *P. Jonker*: The transient X-ray sky (I, 25+5')

9:30 – 9:45: *A. Gal-Yam*: Infant Supernova Explosions: the ZTF/SRG Synergy (C, 13+2')

9:45 – 10: 15: *E. Kara*: Tidal Disruption Events (I, 25+5')

10:15 – 10:30: *A. Malyali*: TDE in the eROSITA era, (S, 13+2')

10:30 – 10:45: *M. Graham*: The changing look Zoo (C, 13+2')

10:45 – 11:00: *M. Krumpe*: SRG/eROSITA constraints on the AGN duty cycle (S, 13+2')

11:00 – 11:30: Coffee Break and Posters viewing

11:30 – 12:00: *M. Kowalski*: TBD (I, 25+5')

12:00 – 12:15: *T. Kupfer*: Treasures from the Zwicky Transient Facility Galactic Plane observations and its connection to eROSITA (C, 13+2')

12:15 – 12:30: *M. Brightman*: Transient ULXs and prospects for SRG (C, 13+2')

12:30 – 12:45: *N. Schartel*: XMM-Newton Joint Observing Programs and TOOs: Potential for Synergies with eROSITA (C, 13+2')

12:45 – 13:05: *M. Guainazzi*: Synergies between XRISM and SRG/eROSITA (S, 17+3')

13:05 – 13:15: Conclusions

13:15 END of the MEETING