

## The Future of High Resolution X-ray Astronomy — Chair: Paul Plucinsky

1:00pm-1:30pm	Paul Hertz	X-ray Astronomy and the Future of Astrophysics
1:30pm-2:00pm	Alexey Vikhlinin	Future of high-resolution X-ray imaging
2:00pm-2:30pm	Randall Smith	The Future of High Resolution Spectroscopy
2:30pm-3:00pm		Coffee Break

## Chandra 20 Years Celebrations

3:00pm-5:00pm		Chandra 20 Years Celebrations
5:00pm-7:00pm		STS-93 Astronauts
7:00pm-8:00pm		Reception (Avenue 34)
8:00pm-10:00pm		Dinner (Avenue 34)

## Friday, December 6th

### Galaxies & AGN Feedback — Chair: Antara Basu-Zych

9:00am-9:30am	Ryan Hickox	<b>Science with deep surveys: Evolution of black holes and galaxies and the cosmic X-ray background</b>
9:30am-9:45am	Valentina Braito	Chandra high resolution map of the emitting regions of NGC 7582
9:45am-10:00am	Kristin Garofali	On the Nature of the 0.3–30 keV Spectrum of Low-Metallicity Starburst Galaxy VV114 Based on Chandra, XMM, and NuSTAR
10:00am-10:15am	Chiara Feruglio	Chandra, ALMA and MUSE@VLT reveal feeding & feedback in obscured AGN
10:15am-10:30am	Jelle Kaastra	A new era of AGN outflow studies initiated by Chandra's LETGS
10:30am-11:00am		Coffee Break / Poster Removal

### Black Hole Accretion: Disk & Jets — Chair: Mike Nowak

11:00am-11:30am	Sera Markoff	<b>Chandra's exquisite view of the accretion processes around black holes</b>
11:30am-11:45am	Bradford Snios	Detection of Superluminal Motion in the X-Ray Jet of M87
11:45am-12:00pm	Stéphane Corbel	Chandra reveals multiple X-ray jets in black hole X-ray binaries
12:00pm-12:15pm	Koushik Chatterjee	First High-Resolution GRMHD studies of accretion in Sgr A*
12:15pm-12:30pm	Lia Corrales	The low-luminosity accretion flow of Sgr A* as seen by Chandra HETG
12:30pm-12:45pm	Mackenzie Jones	Large Scale Extended Hard X-ray Emission in NGC 7212 with Chandra
12:45pm-1:45pm		Lunch (Terrace Room)

### Transient Sources — Chair: Mel Nynka

1:45pm-2:15pm	Daryl Haggard	<b>Chandra's Legacy of Discovery in Transient Astrophysics</b>
2:15pm-2:30pm	James Steiner	Spins of supermassive black holes with X-ray timing observations of tidal disruption events (TDEs)
2:30pm-2:45pm	Dacheng Lin	Three candidate magnetar-powered fast X-ray transients found from Chandra archival data
2:45pm-3:00pm	Rafael Martínez-Galarza	The Weirdest Objects in the Chandra Source Catalog 2.0. A Machine Learning Approach

Complete and up to date program available at: [cxc.harvard.edu/symposium\\_2019/](http://cxc.harvard.edu/symposium_2019/)

# 20 Years of Chandra Science



## SYMPOSIUM

BOSTON PARK PLAZA - DEC 3-6, 2019

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**Tuesday, December 3rd**

1:00pm-1:15pm	Belinda Wilkes	<i>Welcome</i>
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**Clusters of Galaxies I — Chair: Larry David**

1:15pm-1:45pm	<b>Brian McNamara</b>	<b>Cluster Atmospheres Unveiled by Chandra</b>
1:45pm-2:00pm	Stephen Walker	Unravelling the physics of the intracluster medium with cold fronts
2:00pm-2:15pm	Urmila Chadayammuri	Constraining plasma microphysics with MHD simulations and Chandra X-ray Visionary Program Observations of the merging cluster Abell 2146
2:15pm-2:30pm	Edmund Douglass	Off-Axis Mergers and Cool Core Disruption in Galaxy Clusters
2:30pm-2:45pm	Qian Wang	Searching for X-ray Shock Fronts at Radio Relic Edges in PLCKESZ G200.9-28.2 and Abell 2345 with Chandra
2:45pm-3:15pm		<i>Coffee Break</i>

**Clusters of Galaxies II — Chair: Mike Wise**

3:15pm-3:45pm	<b>Steve Allen</b>	<b>Chandra and Cluster Cosmology</b>
3:45pm-4:00pm	Michael McDonald	10 Years of Chandra and the South Pole Telescope

**Neutron Stars, Pulsars, Planets — Chair: Dave Pooley**

4:00pm-4:30pm	<b>Vicky Kaspi</b>	<b>Chandra and Neutron Stars</b>
4:30pm-4:45pm	Andrea Belfiore	Diffuse emission around an ultra-luminous X-ray pulsar
4:45pm-5:00pm	Georgios Vasilopoulos	Ultraluminous X-ray pulsars: spin-evolution and super-orbital modulation during super-Eddington accretion
5:00pm-5:15pm	George Pavlov	High-speed ejecta from the high-mass gamma-ray binary PSR B1259–63/LS 2883
5:15pm-5:30pm	Chandreyee Maitra	Unveiling the intriguing nature of PSR J0855-4644 through a Chandra observation: Why no Gamma rays?
5:30pm-5:45pm	Scott Wolk	High Energy Diversity of Exoplanet Host Stars
5:45pm-6:00pm	William Dunn	A New Revolution for Planetary X-ray Emission Through Chandra and Juno
6:00pm-7:30pm		<i>Poster Session &amp; Refreshments</i>

**Wednesday, December 4th****AGN Evolution — Chair: Dan Schwartz**

9:00am-9:30am	<b>Priyamvada Natarajan</b>	<b>Unveiling black holes in the near and far universe</b>
9:30am-9:45am	Yi-Jung Yang	A Candidate Nuclear IMBH in a Blue Compact Dwarf Galaxy
9:45am-10:00am	Alberto Masini	The Chandra Deep Wide Field Survey of the Bootes Field
10:00am-10:15am	Francesca Civano	In medio stat virtus: the Chandra COSMOS Legacy Survey
10:15am-10:30am	Becky Canning	AGN Evolution in the Universe's Densest Environments
10:30am-11:00am		<i>Coffee Break</i>

**XRB in the Milky Way & Nearby Galaxies — Chair: Doug Swartz**

11:00am-11:30am	<b>Vallia Antoniou</b>	<b>Chandra's 20-year view of X-ray binaries in the Milky Way and nearby galaxies</b>
11:30am-11:45am	Q. Daniel Wang	Large-scale Chandra Survey of the Galactic Central Region
11:45am-12:00pm	Roberto Soria	Ultraluminous X-ray sources and nuclear black holes in the Virgo cluster spirals

12:00pm-12:15pm	Francesca Fornasini	Connecting the metallicity dependence and redshift evolution of HMXBs
12:15pm-12:30pm	Breanna Binder	Revisiting the Lx-SFR Relationship in Nearby Galaxies
12:30pm-1:30pm		<i>Lunch (Terrace Room)</i>

**Stellar Lifecycles I — Chair: Dave Principe**

1:30pm-2:00pm	<b>Rachel Osten</b>	<b>Seeing Stars in a New Light: What Have We Learned from 20 Years of Investigations with Chandra, and What Do We Still Need to Learn?</b>
2:00pm-2:15pm	Konstantin Getman	Insights into Young Star Cluster Astrophysics Based on Chandra Observations
2:15pm-2:30pm	David Huenemoerder	A Deep Exposure in High Resolution X-Rays Reveals the Hottest Plasma in the zeta Puppis Wind
2:30pm-2:45pm	Hans Moritz Günther	New tricks for a mature observatory: Chandra HETG/HRC-I observations of TW Hya probe the structure of accretion
2:45pm-3:00pm	Margarita Karovska	Chandra's Sub-arcsecond Resolution View of Wind Accreting Interacting Symbiotic Binaries
3:00pm-3:15pm	Vaughn Parts	Modeling O star grating spectra to constrain the shock-heated plasma temperature distributions and mass-loss rates of their winds
3:15pm-4:00pm		<i>Coffee Break</i>

**Stellar Lifecycles II — Chair: Hiroya Yamaguchi**

4:00pm-4:30pm	<b>Pat Slane</b>	<b>Probing the Relics of Stellar Explosions with Chandra</b>
4:30pm-4:45pm	Daniel Patnaude	20 Years of Cas A with the Chandra X-ray Observatory
4:45pm-5:00pm	Brian Williams	The Expansion of Tycho's Supernova Remnant
5:00pm-5:15pm	Vikram Dwarkadas	X-ray Spectroscopy of Young Supernovae with Chandra
5:15pm-5:30pm	Shuo Zhang	Fine Morphology of Galactic Center Non-thermal Filaments Revealed by Deep Chandra Observation
5:30pm-7:30pm		<i>Poster Session &amp; Refreshments</i>

**Thursday, December 5th****Quasars & Radio Galaxies — Chair: Anna Wolter**

9:00am-9:30am	<b>Gabriele Ponti</b>	<b>AGN and AGN feedback</b>
9:30am-9:45am	Ryan Pfeifle	Uncovering Buried Dual and Triple AGNs in Galaxy Mergers
9:45am-10:00am	David Pooley	The Most Powerful Lenses in the Universe: Quasar Microlensing
10:00am-10:15am	Xiangyu Jin	Connecting Changing-Look Quasar's Optical/X-ray Spectral Shapes and Accretion Rates
10:15am-10:30am	Kate Napier	Probing the viability of CMB quenching for high-z jetted AGN
10:30am-10:45am	Malgosia Sobolewska	Environment and growth of young extragalactic radio jets probed with X-rays
10:45am-11:15am		<i>Coffee Break</i>

**Current X-ray Missions — Chair: Andrea Prestwich**

11:15am-11:45pm	Norbert Schartel	20th Launch Anniversary of XMM-Newton: Scientific Achievements and Future Perspectives
11:45pm-12:00pm	Paul Nandra	Status and first results from eROSITA
12:00pm-1:00pm		<i>Lunch (Terrace Room)</i>