

Sera Markoff

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PERSONAL DETAILS

Date and place of birth 6 July 1971, Minneapolis, MN, USA

Citizenship USA

Languages English (native), Dutch (near fluent), German (near fluent)

CURRENT POSITION

2008 - Present Universitair Hoofddocent (Assoc. Prof.), University of Amsterdam

EDUCATION

2000 PhD, Theoretical Astrophysics Program, University of Arizona, Tucson, AZ, USA ,
thesis title “High Energy Processes in the Galactic Center”

1996 M.A., Physics/Theoretical Astrophysics, University of Arizona, Tucson, AZ, USA

1993 B.S., Physics, Massachusetts Institute of Technology, Cambridge, MA, USA

CAREER EXPERIENCE

2008- present Universitair Hoofddocent, UvA. Supervision to date: 5 postdocs, 5 PhDs,
8 MSc students, 5 BSc students

1/2011 - 12/2014 Director Master’s Program in Astronomy & Astrophysics, UvA

2006-2008 Universitair Docent (Assistant Professor), UvA

2002-2005 National Science Foundation Astronomy & Astrophysics Postdoctoral Fellow,
Massachusetts Institute of Technology, Cambridge, MA, USA

2000-2002 A.v. Humboldt Foundation Research Fellow, Max Planck Institute for Radio
Astronomy, Bonn, Germany

1994-2000 Graduate student researcher at University of Arizona, Tucson, AZ, USA,
advisor: Prof. Fulvio Melia

1993-1994 Visiting graduate student researcher at the Racah Institute for Physics,
Hebrew University, Jerusalem, Israel, host: Prof. Avishai Dekel

1990-1993 Undergraduate researcher at the MIT Center for Space Research, advisor:
Prof. Claude Canizares, thesis: “The Unusual ROSAT Quasar PG1407+265”

RESEARCH INTERESTS

Accretion and outflows around black holes of all mass scales, and the relationship between them, as well as their impact on their surroundings. High energy astrophysics, astroparticle physics, multiwavelength astronomy from low-frequency radio through gamma-rays. Instrumentation: LOw-Frequency ARray (LOFAR) and the next generation TeV gamma-ray facility Cherenkov Telescope Array (CTA).

AWARDS & HONORS

- 2015 Beatrice M. Tinsley Centennial Visiting Professorship, UT Austin, 2/20/15-5/2/15
- 2014 Named a Fellow of the American Physical Society
- 2012 Visiting Professorship, University Paris Diderot (VII), 3/1/13 – 5/31/13
- 2007 VIDI personal career award (NWO), *Understanding the Physics of Black Hole Jets and Accretion States from Stellar to Galactic Scales* (5 years)
- 2002 National Science Foundation Astronomy & Astrophysics Postdoctoral Research Fellowship (3 years)
- 2000 A.v. Humboldt Foundation Research Fellowship (2 years)
- 1999 University of Arizona Graduate College Dean's Doctoral Fellowship (1 year)
- 1996 National Science Foundation Graduate Student Research Fellow (3 years)
- 1995 University of Arizona Graduate Student Fellow (1 year)
- 1994 NASA Space Grant Graduate Student Fellow (1 Year)
- 1993 Sigma Pi Sigma, Physics Honor Society (MIT)

SELECTED RESEARCH GRANTS

- 2014 NWO Astroparticle Physics Program, *Determining the contribution of X-ray Binaries to the Galactic cosmic ray population, and their TeV emission properties*, (Co-PIs: S. Markoff & B. Achterberg), €215k
- 2014 NWO Astroparticle Physics Program, *CTA-NL: Establishing the Netherlands as full member country of the Cherenkov Telescope Array*, (PI: D. Berge, CoIs: Markoff, Vink, Venema, Stuik, Hörandel, van den Berg), €645k
- 2013 NOVA-4 Instrumentation, *Camera & Detector Development for CTA*, (PI: J. Vink, CoIs: Berge, Markoff, Hörandel, Stuik, Venema, van den Berg), €1.5M
- 2013 NWO Open Competition, *First steps towards calibrating black hole jet feedback: a decisive link between inflow and outflow*, €180k
- 2012 NOVA-4, *Our Galactic Supermassive Black Hole Sgr A**, €180k
- 2012 NWO Graduate Programme proposal for GRAPPA (Co-PI with J. Vink, P. Decowski, J. de Boer), €800k
- 2011 NOVA-3 Instrumentation, *Extending NOVA seed funding for CTA: A bridge towards NWO-M funds for astrometry*; PI, with J. Vink, €60k seed funding
- 2011 NASA Chandra X-ray Visionary Program: 3Msec on Galactic supermassive black hole Sgr A* (Co-PI with F. Baganoff & M. Nowak), \$390k
- 2008 Co-coordinator, with Jörn Wilms (Uni Erlangen), of the EU FP7 Marie Curie Initial Training Network “Black Hole Universe” linking UvA, Erlangen/Nürnberg (D), Southampton (UK), CEA Saclay (F), INAF Brera (IT), U Cagliari (IT) and Sabanci University (Turkey), ~€2.5M
- 2007 NOVA-3 Instrumentation, *Bringing TeV Astronomy to the Netherlands*, PI, with J. Vink, €15k seed funds
- 2007 NWO VIDI program + Aspasia subsidy, €700k
- 2007 NASA Astrophysics Theory Program grant (PI: D. Meier, CoIs: Markoff, Nakamura & Fragile), \$311k
- 2006 NASA Chandra Guest Observer Program (PI: M. Nowak, CoIs: Markoff, Canizares, Young, et al.), \$170k
- 2006 NWO Open Competition, *Constraining jet physics in accreting black holes*, €185k

REFEREED PUBLICATIONS

As of May 2015 (ADS): 112 refereed publications, 5170 citations, h=38, 12 >100 citations

(Note: underlined, bold names were directly supervised by me while working in my group)

- Prieto, M. A., Fernández-Ontiveros, **Markoff, S.**, et al. 2015, MNRAS, in prep.
The central parsec of M87: the nature of its core emission and the lack of ADAF emission
- Dibi, S., **Markoff, S.**, Belmont, R., Malzac, J., Neilsen, J. & Witzel, G., 2015, MNRAS, subm.
Emission mechanisms from Sgr A's inner gravitational radii: A statistical infrared and X-ray flare approach*
- Curran, P., Miller-Jones, J.C.A., Rushton, A.P., et al. 2015, MNRAS, subm.
Radio polarimetry as a probe of unresolved jets: the 2013 outburst of XTE J1908+094
- Brinkerink, C., Falcke, H., Law, C., et al. 2015, A&A, subm.
ALMA and VLA measurements of frequency-dependent time lags in Sagittarius A: evidence for a relativistic outflow*
- Russell, T.D., Miller-Jones, J.C.A., Curran, P.A. et al. 2015, MNRAS, in press.
Radio monitoring of the hard state jets in the 2011 outburst of MAXI J1836–194
- Tetarenko, A., Sivakoff, G., Miller-Jones, J. et al. 2015, ApJ, in press
Sub-mm jet properties of the X-ray binary SWIFT J1745-26
- Dieckmann, M., Sarri, G., **Markoff, S.**, Borghesi, M. and Zepf, M. 2015, A&A, in press
PIC simulation study of the interaction between a relativistically moving leptonic micro-cloud and ambient electrons
- Bower, G.C., **Markoff, S.**, Dexter, J., et al. 2015, ApJ, 802, 69
Radio and Millimeter Monitoring of Sgr A: Constraints on the G2 Encounter and the Spectrum and Variability of Sgr A**
- Neilsen, J., **Markoff, S.**, Nowak, M., Dexter, J., et al. 2015, ApJ, 799, 199
The X-ray Flux Distribution of Sgr A as seen by Chandra*
- Garsden, H., Girard, J.N., Starck, J.L., et al. 2015, A&A, 575, 90
LOFAR sparse image reconstruction
- Plotkin, R., Gallo, E., **Markoff, S.**, et al. 2015, MNRAS, 446, 4098
Broadband Modeling of the Weakly Accelerated Jet from the Stellar Mass Black Hole XTE J1118+408 in Quiescence
- Sell, P., Heinz, S., Richards, E. et al. 2015, MNRAS, 446, 3579
Shell-shocked: The interstellar medium near Cygnus X-1
- Moldón, J., Deller, A.T., Wucknitz, O., et al. 2015, A&A, 574, 73
The LOFAR long baseline snapshot calibrator survey
- Morosan, D.E., Gallagher, P.T, Zucca, P. et al. 2014, A&A, 568, 67
LOFAR tied-array imaging of Type III solar radio bursts
- Gallo, E., Miller-Jones, J.C.A., Russell, D.M., et al. 2014, MNRAS, 455, 290
The radio/X-ray domain of black hole X-ray binaries at the lowest radio luminosities
- Dibi, S., **Markoff, S.**, Belmont, R & Malzac, J., 2014, MNRAS, 441, 1005
Exploring plasma evolution during Sgr A flares*
- Bower, G.C., **Markoff, S.**, Brunthaler, A. et al. 2014, ApJ, 790, 1
*The Intrinsic Two-Dimensional Structure of Sagittarius A**
- Oonk, J., van Weeren, R., Salgado, E., et al. 2014, A&A, 560, 98
Detecting cosmic rays with the LOFAR radio telescope
- Russell, T.D., Soria, R., Miller-Jones, J.C.A., Curran, P., **Markoff, S.**, et al. 2014, MNRAS, 439, 1390
The accretion-ejection coupling in the black hole candidate X-ray binary MAXI J1836–194
- Curran, P., Coriat, M., Miller-Jones, J.C.A., et al. 2014, MNRAS, 437, 3265
The evolving polarised jet of black hole candidate Swift J1745-26
- Walg, S., Achterberg, A., **Markoff, S.**, Keppens, R. & Porth, O. 2014, MNRAS, 439, 3969

Relativistic AGN jets II. Jet properties and mixing effects for episodic jet activity

Dexter, J., McKinney, J.C., **Markoff, S.** & Tchekhovskoy, A. 2014, MNRAS, 440, L2185
Transient jet formation and state transitions from large-scale magnetic reconnection in black hole accretion disks

Polko, P., Meier, D.L. & **Markoff, S.** 2014, MNRAS, 438, 959

Linking accretion flow and particle acceleration in jets. II. Self-similar jet models with full relativistic MHD inertia

Falcke, H. & **Markoff, S.** 2013, Class. Quant. Grav., 30, 244003

The supermassive black hole in the Galactic Center: an ideal testbed for accretion and strong gravity

Neilsen, J., Nowak, M.A., Gammie, C., Dexter, J., **Markoff, S.**, et al. 2013, ApJ, 774, 42

A Chandra/HETGS census of X-ray variability from Sgr A during 2012*

Schellart, P., Nelles, A., Buitink, S., et al. 2013, A&A, 560, 98

Detecting cosmic rays with the LOFAR radio telescope

Wang, Q.D., Nowak, M.A., **Markoff, S.**, et al. 2013, Science, 341, 981

Dissecting X-ray emitting gas around the center of our Galaxy

van Haarlem, M.P., Wise, M.W., Gunst, A.W. et al. (LOFAR collab.) 2013, A&A, 556, 2

LOFAR: The LOw-Frequency ARray

Walg, S., Achterberg, A., **Markoff, S.**, Keppens, R. & Meliani, Z. 2013, MNRAS, 433, 1453

Relativistic AGN jets I. The delicate interplay between jet structure, cocoon morphology and jet head propagation

Drappeau, S., **Dibi, S.**, Dexter, J., **Markoff, S.** & Fragile, P.C. 2013, MNRAS, 431, 2872

*Self-consistent spectra from GRMHD simulations with radiative cooling: A link to reality for Sgr A**

Grinberg, V., et al., 2013, A&A, 554, 88

Long term variability of Cygnus X-1 V. State definitions with all sky monitors

Sotomayer-Beltran, C. et al. (LOFAR) 2013, A&A, 552, 58

Long term variability of Cygnus X-1 V. State definitions with all sky monitors

Russell, D. M., et al., 2013, ApJL, 768, 35

An evolving compact jet in the black hole X-ray binary MAXI J1836–194

Corbel, S., et al., 2013, MNRAS, 431, L107

Formation of the compact jets in the black hole GX 339–4

Acharya, B.S. et al. (CTA collaboration) 2013, APh, 43, 3

Introducing the CTA concept

Inoue, S. et al. (CTA GRBs WG) 2013, APh, 43, 2521

Gamma-Ray Burst Science in the Era of the Cherenkov Telescope Array

Parades, J.M. et al. (CTA Binaries WG) 2013, APh, 43, 301

Binaries with the eyes of CTA

Askegar, A. et al. (LOFAR) 2013, A&A, in press

LOFAR detections of low-frequency radio recombination lines towards Cassiopeia A

Hermesen, W. et al. (LOFAR) 2013, Science, 339, 436

Synchronous X-ray and Radio Mode Switches: A Rapid Global Transformation of the Pulsar Magnetosphere

Russell, D.M., **Markoff, S.**, Casella, P.G., et al. 2013, MNRAS, 429, 815

Jet spectral breaks in black hole X-ray binaries

Middleton, M., Miller-Jones, J., **Markoff, S.**, et al. 2013, Nature, 493, 187

Compact jet emission reveals the presence of a stellar-mass black hole in the closest ultraluminous X-ray source

Polko, P., Meier, D.L. & **Markoff, S.** 2013, MNRAS, 428, 587

Linking accretion flow and particle acceleration in jets: new relativistic magnetohydrodynamical jet solutions including gravity

Nowak, M.A., Neilsen, J., **Markoff, S.**, et al. 2012, ApJ, 759, 95

*Chandra-HETG Observations of the Brightest Flare seen from Sgr A**

- Dibi, S., Drappeau, S.,** Fragile, P.C., **Markoff, S.** & J. Dexter 2012, MNRAS, 426, 1928
General relativistic MHD simulations of accretion around Sgr A: How important are radiative losses?*
- Jonker, P., Miller-Jones, J., Homan, J. et al. 2012, MNRAS, 423, 3308
The black hole candidate MAXI J1659-152 in and towards quiescence in X-ray and radio
- Ratti, E., Jonker, P., Miller-Jones, J., Torres, M.A.P., Homan, J., **Markoff, S.**, et al. 2012, MNRAS, 423, 2656
The black hole candidate XTE J1752-223 towards and in quiescence: optical and simultaneous X-ray-radio observations
- Hassall, T., Stappers, B., Hessels, J. et al. (LOFAR) 2012, A&A, 543, 66
Wide-band simultaneous observations of pulsars: disentangling dispersion measure and profile variations
- Pe'er, A. & **Markoff, S.**, 2012, ApJ, 753, 177
X-ray Emission from Transient Jet Model in Black Hole Binaries
- Gültekin, K., Cackett, E.M., Miller, J.M., di Matteo, T, **Markoff, S.**, Richstone, D., 2012, ApJ, 749, 129
A Chandra survey of supermassive black holes with dynamical mass measurements
- Zubovas, K., Nayakshin, S. & **Markoff, S.** 2012, MNRAS, 421, 1315
Sgr A flares: tidal disruption of asteroids and planets?*
- Plotkin, R.M.**, Anderson, S., Brandt, W. N., **Markoff, S.**, Shemmer, O. & Wu, J. 2012, ApJL, 745, 27
The Lack of Obscuring Tori in BL Lacertae Objects: an Infrared View of Unification with WISE
- Plotkin, R.M., Markoff, S.,** Kelly, B. & Körding, E. 2012, MNRAS, 419, 267
Using the Fundamental Plane of black hole activity to distinguish X-ray processes from weakly accreting black holes
- Miller-Jones, J. et al. 2012, MNRAS, 421, 468
Disc-jet coupling in the 2009 outburst of the black hole candidate H1743-322
- Russell, D.**, et al. 2011, MNRAS, 419, 1740
A late jet rebrightening revealed from multi-wavelength monitoring of the black hole candidate XTE J1752-223
- Froning, C.S. et al. 2011, ApJ, 743, 26
Multiwavelength Observations of A0620-00 in Quiescence
- Actis, M. et al. (CTA collaboration) 2011, Exper. Astron., 32, 193
Design concepts for the Cherenkov Telescope Array CTA: an advanced facility for ground-based high-energy gamma-ray astronomy
- Gandhi, P. et al. 2011, ApJL, 740, 13
A variable mid-infrared synchrotron break associated with the compact jet in GX 339-4
- Böck, M., Grinberg, V., Pottschmidt, K., Hanke, M., Nowak, M.A., **Markoff, S.** et al., 2011, A&A, 533, 8
A spectro-timing analysis of Cyg X-1 during a state transition
- Stappers, B. et al. (LOFAR), 2011, A&A, 530, 80
Observing pulsars and fast transients with LOFAR
- Maitra, D., Miller, J.M., **Markoff, S.** & King, A.L. 2011, ApJ, 735, 107
A jet model for the broadband spectrum of the Seyfert-1 galaxy NGC 4051
- King, A.L., Miller, J.M., Cackett, E.M., Fabian, A.C., **Markoff, S.**, et al. 2011, ApJ, 729, 19
A Distinctive Disk-Jet Coupling in the Seyfert-1 Active Galactic Nucleus NGC 4051
- Plotkin, R.M., Markoff, S.,** Trager, S.C. & Anderson, S.F. 2011, MNRAS, 413, 805
Dynamical black hole masses of BL Lac objects from the Sloan Digital Sky Survey
- Nowak, M., Hanke, M., Trouwbridge, S., **Markoff, S.**, et al. 2011, ApJ, 728, 13
Corona, jet and relativistic line models for Suzaku/RXTE/Chandra-HETG observations of the Cygnus X-1 hard state

- Polko, P.**, Meier, D.L. & **Markoff, S.** 2010, ApJ, 723, 1343
Determining the optimal locations for shock acceleration in magnetohydrodynamical jets
- Miller, J.M., Nowak, M., **Markoff, S.**, Rupen, M.P. & Maitra, D. 2010, ApJ, 720, 1033
*Exploring accretion and disk-jet connections in the LLAGN M81**
- Miller-Jones, J.C., et al. 2010, ApJL, 716, 109
Evolution of the radio-X-ray coupling throughout an entire outburst of Aquila X-1
- van Oers, P.**, **Markoff, S.**, **Maitra, D.**, et al. 2010, MNRAS, 409, 763
High luminosity jets: can the GRS 1915+105 plateau state be compared to the canonical hard state?
- Russell, D.**, **Maitra, D.**, Dunn R. & **Markoff, S.** 2010, MNRAS, 405, 1759
Evidence for a compact jet dominating the broadband spectrum of the black hole accretor XTE J1550-564
- Markoff, S.** 2010, PNAS, 107, 7196
Revelations in our own backyard: Chandra's unique Galactic center discoveries
- Jonker, P. G., Miller-Jones, J., Homan, J., et al. 2010, MNRAS, 401, 1255
Following the 2008 outburst decay of the black hole candidate H 1743-322 in X-ray and radio
- Gültekin, K., Cackett, E.M., Miller, J.M., et al. 2009, ApJ, 706, 404
The Fundamental Plane of Accretion onto Black Holes with Dynamical Masses
- Maitra, D.**, **Markoff, S.** & Falcke, H. 2009, A&A, 508, L13
*A time-dependent jet model for the emission from Sgr A**
- Maitra, D.**, **Markoff, S.**, Brocksopp, C., et al. 2009, MNRAS, 398, 1638
Constraining Jet/Disk Geometry and Radiative Processes in Stellar Black Holes XTE J1118+480 and GX 339-4
- Reynolds, C., Nowak, M., **Markoff, S.**, et al. 2009, ApJ, 691, 1159
Probing the Accretion Disk and Central Engine Structure of NGC 4258 with Suzaku and XMM-Newton Observations
- Falcke, H., **Markoff, S.** & Bower, G. 2009, A&A, 496, 77
Jet-lag in Sgr A: What size and timing measurements tell us about the central black hole in the Milky Way*
- Castro-Tirado, A., de Ugarte Postigo, A., Gorosabel, J., et al. 2008, Nature, 455, 506
Flares from a candidate Galactic magnetar suggest a missing link to dim isolated neutron stars
- Markoff, S.**, Nowak, M., Young, A., et al. 2008, ApJ, 681, 905
*Results from an extensive broadband simultaneous campaign on the underluminous active nucleus M81**
- Eckart, A., Baganoff, F., Zamaninasab, M., et al. 2008, A&A, 479, 625
*Polarized NIR and X-ray flares from Sagittarius A**
- Eckart, A., Schödel, R., García-Marín, M., et al. 2008, A&A, 492, 337
*Simultaneous NIR/sub-mm observation of flare emission from Sagittarius A**
- Tomsick, J., Kalemci, E., Kaaret, P., **Markoff, S.** et al. 2008, ApJ, 680, 593
Broadband X-ray spectra of GX339-4 and the geometry of accreting black holes in the hard state
- Migliari, S., Tomsick, J., **Markoff, S.**, et al. 2007, ApJ, 670, 610
Tracing the Jet Contribution to the Mid-IR over the 2005 Outburst of GRO J1655-40 via Broadband Spectral Modeling
- Gallo, E., Migliari, S., **Markoff, S.**, et al. 2007, ApJ, 670, 600
The Spectral Energy Distribution of Quiescent Black Hole X-Ray Binaries: New Constraints from Spitzer
- Markoff, S.**, Bower, G. & Falcke, H.. 2007, MNRAS, 379, 1519
*How to hide large-scale outflows: size constraints on the jets of Sgr A**

- Young, A., Nowak, M., **Markoff, S.**, Marshall, H., Canizares, C. 2007, ApJ, 669, 830
*High resolution X-ray spectroscopy of a low-luminosity active galactic nucleus: the structure and dynamics of M81**
- Wilms, J., Pottschmidt, K., Pooley, G., **Markoff, S.**, et al. 2007, ApJL, 663, 97
Correlated radio-X-ray variability of Galactic Black Holes: A radio-X-ray flare in Cyg X-1
- Schödel, R., Krips, M., **Markoff, S.** et al. 2007, A&A
The millimetre variability of M81 -- Multi-epoch dual frequency mm-observations of the nucleus of M81*
- Merloni, A., Körding, E., Heinz, S., **Markoff, S.**, et al. 2006, New Astronomy, 11, 567
Why the fundamental plane of black hole activity is not simply a distance driven artifact
- Markoff, S.** Nowak, M. A., Wilms, J. 2005, ApJ, 635, 1203
Going with the Flow: Can the Base of Jets Subsume the Role of Compact Accretion Disk Coronae?
- Markoff, S.** 2005, Ap&SS, 300, 189
Exploring the Jet/Accretion Flow Relationship in Low Disk Luminosity Sources
- Homan, J., Buxton, M., **Markoff, S.**, et al. 2005, ApJ, 624, 295
Multiwavelength Observations of the 2002 Outburst of GX 339-4: Two Patterns of X-ray-Optical/Near-Infrared Behavior
- Markoff, S.** 2005, ApJL, 618, 103
Sagittarius A in Context: Daily Flares as a Probe of the Fundamental X-ray Emission Process in Accreting Black Holes*
- Gleissner, T., Wilms, J., Pooley, G. G., Nowak, M. A., Pottschmidt, K., **Markoff, S.**, et al. 2004, A&A, 425, 1061
Long term variability of Cygnus X-1. III. Radio-X-ray correlations
- Markoff, S.** and Nowak, M. A. 2004, ApJ, 609, 972
Constraining X-ray Binary Jet Models via Reflection
- Filho, M. E., Fraternali, F., **Markoff, S.**, et al. 2004, A&A, 418, 429
Further clues to the nature of composite LINER/H II galaxies
- Falcke, H., Körding, E., **Markoff, S.** 2004, A&A, 414, 895
A scheme to unify low-power accreting black holes. jet-dominated accretion flows and the radio/X-ray correlation
- Fabbiano, G., Elvis, M., **Markoff, S.**, et al. 2003, ApJ, 588, 175
The X-ray-faint Emission of the Supermassive Nuclear Black Hole of IC 1459
- Corbel, S., Nowak, M.A., Fender, R.P., Tzioumis, A.K., **Markoff, S.** 2003, A&A, 400, 1007
Radio/X-ray Correlations in the low/hard state of GX 339-4
- Markoff, S.**, Nowak, M., Corbel, S., et al. 2003, A&A, 397, 645
Exploring the role of jets in the radio/X-ray correlations of GX 339-4
- Yuan, F., **Markoff, S.**, Falcke, H., Biermann, P. L. 2003, New Astronomy Reviews, 47, 705
Jet-Disk coupling models for low-luminosity AGN
- Markoff, S.**, Nowak, M.A., Corbel, S., Fender, R., Falcke H. 2003, New Astr. Rev., 47, 491
Modeling the X-ray contribution of XRB jets
- Yuan, F., **Markoff, S.**, Falcke, H., Biermann, P.L. 2002, A&A, 391, 139
NGC 4258: A jet-dominated low-luminosity AGN?
- Yuan, F., **Markoff, S.**, Falcke, H. 2002, A&A, 383, 854
*A Jet-ADAF model for Sgr A**
- Körding, E., Falcke, H., **Markoff, S.** 2002, A&AL, 382, 13
Population X: Are the super-Eddington X-ray sources beamed jets in microblazars or intermediate mass black holes?

Markoff, S., Falcke, H., Yuan, F., Biermann, P.L., 2001, *A&AL*, 379, 13

*The Nature of the 10 kilosecond X-ray flare in Sgr A**

Markoff, S., Falcke, H., Fender, R. 2001, *A&AL*, 372, 25

A jet model for the broadband spectrum of XTE J1118+480. Synchrotron emission from radio to X-rays in the Low/Hard spectral state

Markoff, S., Falcke, H., Fender, R. 2001, *Ap&SSs*, 276, 289

Jets in XRB Low/Hard states: models of XTE J1118+480 suggest a strong signature from radio through X-ray

Falcke, H., **Markoff, S.** 2000, *A&A*, 362, 113

The jet model for Sgr A: Radio and X-ray spectrum*

Markoff, S., Melia, F., Sarcevic, I., 1999, *ApJ*, 522, 870

*High-Energy Emission from Relativistic Particles in Sagittarius A**

Melia, F., Fatuzzo, M., Yusef-Zadeh, F., **Markoff, S.** 1998, *ApJL*, 508, L65

A Self-Consistent Model for the Broadband Spectrum of Sagittarius A East at the Galactic Center

Markoff, S., Melia, F., Sarcevic, I. 1997, *ApJL*, 489, 47

On the Nature of the EGRET Source at the Galactic Center

McDowell, J. C., Canizares, C. R., Elvis, M., Lawrence, A., **Markoff, S.**, et al. 1995, *ApJ*, 450, 585

The Unusual Quasar PG 1407+265

Canizares, C. R., Markert, T. H., **Markoff, S.**, Hughes, J.P. 1993, *ApJL*, 405, 17

The insignificance of 'heating flows' in 'cooling flow' clusters of galaxies

BOOKS

Chapter entitled "From Multiwavelength to Mass Scaling: Accretion and Ejection in Microquasars and AGN" in *The Jet Paradigm: From Microquasars to Quasars*, Lecture Notes in Physics vol. 794, Ed. T. Belloni, 2010 (Springer Verlag: Heidelberg), p. 143

Proceedings of the Galactic Center Workshop, 2002: The Central 300 Parsecs of the Milky Way. *Astronomische Nachrichten Supplementary Issue 1/2003*, Editors: A. Cotera, S.

Markoff, T.R. Geballe, H.Falcke

ACADEMIC SERVICE (INTERNATIONAL)

▶ International Conference Organization

- ▶ "Galactic Center Workshop: The Central 100 Parsecs" (co-chair), HI, USA, August, 2002
- ▶ "The Paradoxes of Massive Black Holes: A Case Study in the Milky Way", Kavli Institute for Theoretical Physics, CA, USA, April, 2005
- ▶ "From the Center of the Milky Way to Nearby Low-Luminosity Galaxies", Bad Honnef Physics Center, Germany, April, 2006
- ▶ "Bursts, Pulses and Flickering: Wide-Field Monitoring of the Dynamic Radio Sky", Greece, June, 2007
- ▶ "A Population Explosion: The Nature and Evolution of X-ray Binaries in Diverse Environments", FL, USA, Oct./Nov. 2007
- ▶ "The Universe Under the Microscope: Astrophysics at High Angular Resolution", Bad Honnef Physics Center, Germany, April 2008
- ▶ "7th Microquasar Workshop", Turkey, Sept. 2008
- ▶ "LOFAR and the Transient Radio Sky", Amsterdam, Dec. 2008
- ▶ "1st Summer School on Multiwavelength Astronomy", Paris, July 2009
- ▶ "The Galactic Center: A Window to the Nuclear Environment of Disk Galaxies", Shanghai, China, Oct. 2009

- ▶ Chair: “2nd Summer School on Multiwavelength Astronomy”, Amsterdam, June/July 2010
- ▶ 2010 38th COSPAR Scientific Assembly session “Accretion on Compact Objects and Fast Phenomena in the Multiwavelength Era”, Bremen, Germany, July 2010
- ▶ “Jets on All Scales”, IAU Symposium 275, Buenos Aires, Sept. 2010
- ▶ Chair: “Cosmic Ray Interactions” workshop, Lorentz Center, Leiden, March 2011
- ▶ “High Energy Universe” XMM conference, Berlin, June/July 2011
- ▶ “Black Hole Astrophysics: Tales of Power and Destruction”, Winchester, UK, July 2011
- ▶ Event Horizon Telescope Inaugural Workshop, Tucson, AZ, January 2012
- ▶ Chair: CTA Collaboration meeting, Amsterdam, May 2012
- ▶ “Black Hole Universe 2012”, Co-chair, Bamberg, Germany, June 2012
- ▶ “Black Holes on the Black Sea”, Istanbul, Turkey, June 2012
- ▶ “Black Hole Feedback 2012”, Dartmouth, NH, July/August 2012
- ▶ “LINK Meeting for the Science of CTA with cosmic-ray physics”, Buenos Aires, Argentina, November 2012
- ▶ Chair: “A new view of accretion onto our Galactic Center”, Lorentz Center workshop, January 2013
- ▶ Brindisi Workshop: “Black Hole (g)Astronomy: exploring the different flavors of accretion”, Brindisi, Italy, Sept 2013
- ▶ Co-Chair: IAU Symposium 303: “The galactic center: Feeding and feedback in a normal galactic nucleus”, Santa Fe, NM, Sept/Oct 2013
- ▶ Chair of IAU pre-meeting workshop on Sgr A* *Chandra* XVP campaign results, Santa Fe, NM, Sept/Oct 2013
- ▶ 40th Cospar Scientific Assembly: “New broadband perspectives on the Galactic center black hole and its environment”, Moscow, Aug. 2014
- ▶ Event Horizon Telescope 2014, Perimeter Institute, Waterloo, Canada, Nov. 2014
- ▶ “Meierfest”: Astrophysical Jets on All Scales, Caltech, Mar. 2015
- ▶ 2015: Member of the Chrétien International Research Grant selection committee for the American Astronomical Society
- ▶ Member of the Athena+ mission Science Working Group SWG 2.4: The close environments of SMBHs
- ▶ Member of the LOFT mission Observatory Science Working group on Accretion/Ejection and jets
- ▶ Member Cherenkov Telescope Array (CTA) Consortium Board (PHYSics working group)
- ▶ Served on selection panel for the NSF Astronomy & Astrophysics Postdoctoral Fellows program
- ▶ Served on selection panel for the NASA Einstein Fellowship Program
- ▶ Served on Time Allocation Committee for NASA’s Chandra Observatory, 2006, 2008, 2011
- ▶ Served on the review panels for the NSF (National Science Foundation) CAREER grant program
- ▶ Referee for Science, Astronomy & Astrophysics, Astrophysical Journal, Monthly Notices of the Royal Astronomical Society, Astroparticle Physics Journal, plus several international funding agencies (USA, Netherlands, France, Belgium, Czech Republic, Poland)
- ▶ Several years of science outreach in urban Boston classrooms, via Project Astro
- ▶ (2000-2010): Co-editor of Galactic Center Newsletter (<http://www.aoc.nrao.edu/~gcnews/index.shtml>)
- ▶ Starting May 2015: Editor of Astroparticle Physics Journal (Elsevier)

ACADEMIC SERVICE (NL)

- ▶ Since 2006 have supervised 5 postdocs, 5 PhD students, 8 master students, and 5 bachelor students
- ▶ Since 2012, member of Management Team, API, University of Amsterdam
- ▶ Since 2011, Director of the Master Program in A&A, University of Amsterdam
- ▶ Since 2011, Member of the Board of Studies of Graduate School of Exact Sciences
- ▶ Member of Lorentz Center Astronomy Steering Committee (2011-), Chair of Committee since 1/2014
- ▶ Member of the Dutch Astroparticle Physics Committee (CAN)
- ▶ Member of NNV subatomic physics steering committee (2011-)
- ▶ 2010-2011, Member of PhD advisory committee (“inquisitie”), API
- ▶ Co-founder and member of executive board of WiF (Women in the FNWI) network of female science staff at the UvA (2007-2010)
- ▶ Founding member of GRAPPA Institute, UvA
- ▶ Member of hiring committee (2x) for GRAPPA Institute, UvA, 2011-2012
- ▶ Member of MacGillavry Program hiring committee, UvA, 2010-2011
- ▶ Member of hiring committee for Radboud University, Nijmegen, 2009-2010
- ▶ API Colloquium organizer (Fall 2006-Fall 2009)
- ▶ Member of LOFAR Transients Key Project, co-PI of the Jets Scientific Working Group
- ▶ Introduced interactive learning techniques to curriculum (voting machine), now used in many courses at the FNWI
- ▶ Developed two new courses: *Introduction to Cosmology* and *HEA: Radiative Processes and Relativistic Flows*
- ▶ Developed and taught two short term courses for NIKHEF topical lectures in astroparticle physics and the Fall NOVA school (Fall 2006)
- ▶ Research presentation at external departmental review, Spring 2006
- ▶ Organized pre-FP7 meeting with NOVA funds for successful Marie Curie ITN bid
- ▶ Organized “mini-MHD” meeting, June 2008, UvA (NOVA funded)
- ▶ Organizing committee of 2009 Nijmegen Summer School on Astroparticle Physics (<http://nijmegen09.hef.kun.nl>)
- ▶ Organized international summer school on Multiwavelength Data Analysis at UvA, June/July 2010, 40 participants, 12 external teachers (funded by ITN grant)
- ▶ Participating in University Open Days
- ▶ Member of WSRT/LOFAR PC (ASTRON) (2009-2010)
- ▶ Member of NWO VC selection committee (2009-2010)
- ▶ Annual seminar “How to apply for stuff” attended by ~30-40 AiOs and Postdocs from around the NL, as of 2013 developed into two day Career Day event for A&A and Physics

INVITED TALKS AND COLLOQUIA (SINCE 2006)

- 11/2015 The Physics of Extreme Energy Release, ISSI, Bern, Switzerland
- 10/2015 Colloquium, DIAS, Dublin, Ireland
- 7/2015 Paving the Way to Simultaneous Multi-Wavelength Astronomy, Leiden, NL
- 6/2015 EWASS 2015, Special Session “Low Accretion Physics in the Universe”, La Laguna, Spain
- 5/2015 Colloquium, IoA, Cambridge, UK
- 3/2015 “Meierfest: Astrophysical Jets on All Scales”, Caltech, Pasadena, CA
- 3/2015 Colloquium (for Tinsley Professorship), Dept. of Astronomy, UT Austin, TX
- 11/2014 Event Horizon Telescope 2015, Perimeter Institute, Waterloo, CA
- 10/2014 Colloquium, IAP, Paris, FR
- 8/2014 IAU Symposium 312: Star Clusters and Black Holes: In galaxies across cosmic time, Beijing, China
- 8/2014 40th Cospar General Assembly: Special Session “Outflows and accretion from white dwarfs to supermassive black holes”, Moscow
- 6/2014 Colloquium, Dept. of Astronomy, Oskar Klein Center, University of Stockholm
- 4/2014 Keynote at Division of Astrophysics focus session, “Jets and Astrophysical Tests of GR”, APS annual meeting, Savannah, GA
- 3/2014 Colloquium, Dept. of Astronomy, University of Austin, TX
- 2/2014 Colloquium, Ecole Normal Superior, Paris
- 1/2014 Invited focus session at Veldhoven 2014: Signals from the most extreme objects in the universe
- 1/2014 Invited special session at January AAS meeting: News from the Galactic Center: A Multiwavelength Update on the Sgr A*/G2 Encounter
- 9/2013 Black Holes at all Scales, Ioannina, Greece
- 7/2013 Teekolloquium, Max Planck Institute for Nuclear Physics, Heidelberg, Germany
- 6/2013 The innermost regions of relativistic jets and their magnetic fields, Granada, Spain
- 4/2013 Keynote at Division of Astrophysics session, “Nature’s Particle Accelerators” APS annual meeting, Denver, CO
- 4/2013 HEAD meeting, invited special session: Accretion, Spin, and Feedback: How are AGN Jets Produced?, Monterrey, CA
- 10/2012 Nature’s Particle Accelerators, Annapolis, MD
- 8/2012 IAU Symposium 290: Feeding Compact Objects: Accretion on all Scales, Beijing, China
- 7/2012 Black Hole Feedback 2012, Darmouth, NH
- 7/2012 X-ray Binaries: Celebrating 50 years since the discovery of Sco X-1, Boston
- 5/2012 Astrophysics Colloquium, Strassbourg Observatory, FR
- 4/2012 Second Quantum Universe Symposium, Groningen, NL
- 4/2012 British Royal Society Discussion: New windows on transients across the Universe, London, UK (withdrew due to conflict w/ERC interview)
- 1/2012 Event Horizon Telescope Meeting, Tucson, AZ

- 10/2011 The Emerging, Multiwavelength Picture of the Galactic Centre Environment, Heidelberg, Germany
- 10/2011 The formation and evolution of intermediate mass black holes: the case of HLX-1, Toulouse, FR
- 7/2011 Black Hole Astrophysics: Tales of Power and Destructions, Winchester, UK
- 5/2011 Physics Colloquium, KVI, Groningen, Netherlands
- 3/2011 Astrophysics Colloquium, University of Leicester, UK
- 3/2011 Astrophysics Colloquium, University of Bristol, UK
- 2/2011 Astrophysics Colloquium, Max Planck Institute for Radio Astronomy, Bonn
- 9/2010 Cosmogony of AGN: Unifying approaches for the next decade, Brindisi, Italy
- 7/2010 The Physics of Black Holes and Neutron Stars, Bremen, Germany
- 4/2010 DRSTP school, Driebergen, Netherlands
- 9/2009 Chandra “Decade of Discovery” Conference, Boston, MA
- 8/2009 NIJMEGEN09: 3rd International Astroparticle Physics Summer School, Nijmegen, Netherlands
- 7/2009 Marcel Grossman Meeting, Paris, FR
- 5/2009 Astrophysics Colloquium, University of Oxford, UK
- 5/2009 Astrophysics Colloquium, University of Southampton, UK
- 4/2009 Colloquium, WZI, University of Amsterdam
- 11/2008 Cherenkov Telescope Array Workshop, Padova, Italy
- 7/2008 Chandra Radio Galaxies Workshop, Harvard University, Cambridge, MA
- 3/2008 Physics Colloquium, University of Crete, Heraklion
- 6/2007 Ringberg Galactic Center Workshop, Ringberg Castle, Germany
- 6/2007 Crete workshop on microquasars, Greece
- 4/2007 Physics Colloquium, Institute for Theoretical Physics, Amsterdam
- 4/2007 Astrophysics Colloquium, Radboud University, Nijmegen
- 12/2006 Astrophysics Colloquium, Kapteyn Inst. Groningen
- 10/2006 General Physics Colloquium, University of Utrecht
- 9/2006 6th Microquasar Meeting, Como, Italy
- 8/2006 IAU Symposium 138: Black Holes Across Mass Scale, Prague, C.R.
- 5/2006 History of Nuclear Black Holes in Galaxies, Harvard University, Cambridge, MA
- 4/2006 Astrophysics Colloquium, ASTRON
- 4/2006 GC06 Workshop: Milky Way and Nearby Galaxies, Bad Honnef, Germany
- 3/2006 Astrophysics Seminar, Leiden