

# CURRICULUM VITAE

## A. Kashlinsky

### PERSONAL

Name: Kashlinsky, Alexander  
Address: Observational Cosmology Lab, Code 665,  
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Nationality: US, Israel  
Military service: May 1983 - May 1985, regular military service in the Israel Defense Forces.  
After finishing my Ph.D. I returned to Israel for my Army service

### EDUCATION

1979 - 1983 Ph.D. studies, Institute of Astronomy, University of Cambridge, England.  
Title of Ph.D. thesis: "The formation of bound systems in the Universe".  
Supervisor: Martin J. Rees  
April 1983 - Ph.D. in Astrophysics.  
1977 - 1979 Graduate studies for M.Sc., Dept of Physics & Astronomy, Tel Aviv University,  
Tel Aviv, Israel. M.Sc. in Physics  
1976 - 1977 Undergraduate studies, Dept of Physics & Astronomy, Tel Aviv University,  
Tel Aviv, Israel. B.Sc. in Physics  
1973 - 1976 Physics Dept, Latvian State University, Riga, USSR/Latvia

### POSITIONS HELD

2001 - Chief Research Scientist, SSAI, Code 685,  
NASA Goddard Space Flight Center, Greenbelt, MD  
1996 - 2001 Chief Scientist, Raytheon ITSS (formerly Hughes STX), Code 685,  
NASA Goddard Space Flight Center, Greenbelt, MD  
1994 - 98 Assistant Professor (Rank 16), NORDITA/Niels Bohr Institute, Copenhagen, Denmark  
(in the US system Rank 16 corresponds to Associate Professor)  
1991 - 94 senior research associate, Code 685, NASA Goddard Space Flight Center,  
1990 - 91 visiting fellow, NORDITA/Niels Bohr Institute, Copenhagen, Denmark  
1988 - 90 visiting fellow, Astronomy Unit, School of Mathematical Sciences, Queen Mary College

- 1985 - 88 assistant professor, Dept of Astronomy, University of Virginia, Charlottesville  
 1985 - 87 research associate, National Radio Astronomy Observatory, Charlottesville.  
 Joint appointment with the University of Virginia  
 1984 invited lecturer, Dept of Physics, Weizmann Institute of Science, Rehovot, Israel  
 1980 - 83 organizer of cosmology seminars, Institute of Astronomy, Cambridge University  
 1980 - 83 supervisions in maths, Christ's College, Cambridge University  
 1977 - 79 teaching assistantship, Dept of Physics & Astronomy, Tel Aviv University

## HONORS AND AWARDS

- 2016 NASA Maniac Lecture <https://www.youtube.com/watch?v=d8o81vJ4ZA4>  
 2015 Chandra Archival Program Cycle 17, "Early black holes signatures as traced by Chandra, an heritage program" (\$88K) (Co-I's N. Cappellutti, R. Arendt)  
 2013-2030 PI/Team leader "LIBRAE: Looking at Infrared Background Anisotropies w. *Euclid*" (approx \$ 8M) NASA selected project to run on ESA's *Euclid* mission  
<http://www.nasa.gov/centers/goddard/news/features/2013/euclid.html>  
 2011 PI for Chandra C-13 grant (Co-I's N. Cappellutti, R. Arendt)  
 "Correlating CXB and CIB: exploring the nature of CIB fluctuations" (\$ 60K)  
 2010 PI for NASA ADP (Co-I's R. Arendt, G. Fazio, H. Moseley, J. Mather)  
 "Measuring large-scale source-subtracted CIB anisotropies from deep warm mission Spitzer data" (\$ 150K)  
 2009-2011 PI for HST-C18 grant (Co-I's R. Arendt, R. Hill, J. Mather, H. Moseley)  
 "Using HST/WFC3 to Measure the Lyman Cutoff and Colors of the Cosmic Infrared Background Fluctuations Detected by Spitzer/IRAC" (\$ 130K)  
 2009-2011 PI for NASA ADP grant (Co-I's H. Ebeling and F. Atrio-Barandela)  
 "Measuring cluster properties and flows from cosmic microwave background" WMAP and X-ray data" (\$ 285K)  
 2006-2009 PI for NASA ADP grant (Co-I's D. Fixsen and J. Mather)  
 "Studying fluctuations in the far-IR cosmic infrared background with COBE FIRAS maps" (\$ 260 K)  
 2004 - 2005 PI for Spitzer Cycle-1 proposal grant (Co-I's R. Arendt and J.P. Gardner)  
 "Structure of cosmic infrared background from First Look Survey" (\$ 73K)  
 2004 - 09 PI for NSF grant (Co-Is: R. Arendt, S. Odenwald, J. Mather, R. Cutri)  
 "Measuring structure of the cosmic infrared background at high z" (\$ 640 K)  
 2004 - 07 PI for NASA ADP grant (Co-I's H. Ebeling and F. Atrio-Barandela)  
 "Cosmological bulk flows from WMAP and X-ray cluster data" (\$ 258 K)  
 2002-2016 Annual achievement award, SSAI  
 1998-2001 Annual achievement award, Raytheon ITSS  
 1997 - 98 Associate Investigator, Wide-Field Infrared Explorer (WIRE).  
 1997 - 99 PI for NASA ADP grant (with John Mather and Sten Odenwald as Co-Is) to measure "Cosmic Infrared Background structure with WIRE satellite". (\$ 120 K)  
 1994 - 99 NASA LTSA grant with John Mather (PI) and Sten Odenwald to study "Cosmic Infrared Background Correlations from COBE/DIRBE data". (\$340 K)

- 1997 NORFA/NORDITA/TAC grant for scientific conference “Cosmology: from COBE to galaxy formation”.(Dec, Copenhagen) PI and chair: A. Kashlinsky.(\$70K)
- 1995 NORDITA/TAC grant to organize meeting ”Galaxies at high z” (July, Copenhagen, Denmark). PI/Chair: A. Kashlinsky. (\$20K)
- 1995 NORDITA grant to organize a meeting on ”Recent advances in Astroparticle Physics” Apr 1996, Upsala, Sweden. PI: H. Rubinstein, Co-Is: A. Kashlinsky & L. Bergstrom (\$30K)
- 1987 Best lecturer, based on course evaluations of the Astronomy Dept faculty, University of Virginia, Charlottesville
- 1987 Allon Fellow, Israel
- 1986 - 88 Faculty Fellow, Monroe Hill College, University of Virginia, Charlottesville
- 1982 - 83 Research Scholarship, Cambridge Philosophical Society
- 1980 - 83 Honorary Research Scholarship, Christ’s College, Cambridge University
- 1980 - 82 Isaac Newton Scholarship, Cambridge University
- 1976 - 79 Government Scholarship, Tel Aviv University
- 1973 - 76 University Scholarship, Latvian State University

**INVITED CONFERENCE TALKS/SYNERGISTIC ACTIVITIES** (last 7 years)

- 2005 Invited talk ”Cosmic Infrared Background and Early Stellar Populations” Irvine conference ”First light and reionization”
- May 2006 Invited talk ”Pop III Stars and the Cosmic Infrared Background” Baltimore (STScI) conference ”Massive Stars: From Pop III and GRBs to the Milky Way”
- Oct 2006 Invited talk ”Cosmic Infrared Background and Signature of Early Stars” Maryland October conference ”Radiation Backgrounds from the First Stars, Galaxies and Black Holes”
- Jul 2009 Invited talk at “The standard model of the Universe” Challonge Colloquim, Paris
- Feb 2012 Invited talk at “Astrophysics from the radio to the sub-millimetre” Bologna, Italy
- Jul 2011 Invited talk at “ From Cold Dark Matter to Warm Dark Matter in the Standard Model of the Universe: Theory and Observations ”, Paris
- May 2012 SOC Member “NIR background and the epoch of reionization” [http://www.as.utexas.edu/tcc\\_nir\\_wkshp/](http://www.as.utexas.edu/tcc_nir_wkshp/)
- May 2012 Invited talk at “NIR background and the epoch of reionization” Austin, Texas
- May 2012 Invited/Targeted talk at ”First stars IV” Kyoto, Japan (declined/unable to attend)
- Oct 2012 Banylus CIB workshop Banylus,France (declined/unable to attend)
- Jun 2013 Cosmic Flows - Observations and Simulations Marseille, France (declined/unable to attend)
- Jun 2015 First stars, galaxies and black holes: now and then Groningen, Netherlands

- May 2018 Primordial vs astrophysical origin of black holes  
 CERN, Geneva, Switzerland  
<https://indico.cern.ch/event/686745/>
- Apr 2019 The Dark Side of Black Holes  
 International Solvay Institutes, Brussels, Belgium  
[http://www.solvayinstitutes.be/event/workshop/dark\\_2019/dark\\_2019.html](http://www.solvayinstitutes.be/event/workshop/dark_2019/dark_2019.html)

## MEDIA STORIES ON RESEARCH RESULTS

- Science 1995, **268**, p. 975
- Sky & Telescope 2000, April, p. 23
- NASA press release, Jan 2002  
<http://www.gsfc.nasa.gov/topost/200201072mass.html>
- Discovery 2002, April, p. 12
- Nature 2005, 3 Nov, vol. 438, p.39
- NASA press release, Nov 2005  
[http://www.nasa.gov/vision/universe/starsgalaxies/universe\\_objects.html](http://www.nasa.gov/vision/universe/starsgalaxies/universe_objects.html)
- NSF press release, Nov 2005  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=104573&org=NSF&from=news](http://www.nsf.gov/news/news_summ.jsp?cntn_id=104573&org=NSF&from=news)
- Results from the November 2005 Nature article "New measurements of cosmic infrared background fluctuations from early epochs" received wide coverage including CNN, BBC, FOX, MSNBC, Scientific American, New Scientist, National Geographic, Sky & Telescope, Discovery, Le Monde (Paris), The Independent (London), The Guardian (London), Corriere Della Sera (Italy), Der Spiegel (Berlin), El Mundo (Madrid), Pravda (Moscow), Shimbun Newspaper (Tokyo), Illustreret Videnskab (Science Illustrated) (Copenhagen), Times of India, Washington Post, New York Times, Boston Globe, etc.
- NASA press release, Dec 2006  
<http://www.spitzer.caltech.edu/Media/releases/ssc2006-22/release.shtml>
- NSF press release, Nov 2006  
[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=108241](http://www.nsf.gov/news/news_summ.jsp?cntn_id=108241)
- Results from the Jan 1 2007 Ap.J. Letters on Cosmic Infrared Background from early populations have received wide coverage including Nature (News & Views by C. Hogan on Jan 4, 2007), CNN, Discovery Channel, Astronomy (UK), Scitizen (Paris), ABC News (Australia), UPI, MSNBC, USA Today, ABC (Spain), CBS News (Canada), etc.
- NASA press release, Sept 2008  
[http://www.nasa.gov/centers/goddard/news/topstory/2008/dark\\_flow.html](http://www.nasa.gov/centers/goddard/news/topstory/2008/dark_flow.html)
- Results from 2008 Ap.J. papers on Dark Flow have received wide coverage including Astronomy magazine, Astronomy now, Science News, National Geographic, New Scientist, Foxnews,

MSNBC, Daily Telegraph (UK), Discovery Channel, Discovery magazine, NRC Handelsblad (Netherlands), Science Daily, etc.

- Jan 2009 - Astronomy magazine selects Dark Flow as one of “Top 10 discoveries of 2008”.
- New Scientist (Jan 24 2009) runs a cover feature story on Dark Flow “*Dark flow: proof of another universe?*”
- Mar 2010 - BBC Horizon features Dark Flow in “Is everything we know about the Universe wrong?”
- Jan 2011 - National Geographic selects Dark Flow among ”Best Cosmic Mindblowers of 2010”  
<http://news.nationalgeographic.com/news/2010/12/101207-best-of-2010-space-weird-universe-physi>
- Jan 2011 - Discover Magazine selects Dark Flow among 100 Top Science Stories of 2010  
<http://discovermagazine.com/columns/top-100-stories-of-2010>
- Jun 2011 - Discovery Channel features Dark Flow in “Through the wormhole” with Morgan Freeman.
- NASA press release, Jun 2012  
<http://www.jpl.nasa.gov/news/news.php?release=2012-161>
- NASA press-release, Feb 2013  
[http://www.nasa.gov/mission\\_pages/euclid/news/euclid20130124.html](http://www.nasa.gov/mission_pages/euclid/news/euclid20130124.html)
- NASA press-release, May 2016  
<https://www.nasa.gov/feature/goddard/2016/nasa-scientist-suggests-possible-link-between-primor>
- Numerous news features based on the above ”Primordial Black Holes, Dark Matter, LIGO story” are available at <https://www.google.com/search?q=kashlinsky&source=lnms&tbm=nws&sa=X&ved=0ahU>
- PBS Digital Studios produces Dark Flow report <https://www.youtube.com/watch?v=xgdNBQCdhda>

#### ACADEMIC VISITS

Mar 2012	Invited Visitor, Texas Cosmology Center, University of Austin, TX
Oct 2010	Invited visitor, University of Salamanca, Spain
Oct 2008	Invited visitor, Dept of Physics & Astronomy, UNC
Feb 2007	Invited visitor, University of Salamanca, Spain
Jun 2004	Invited visitor, CERN, Geneva, Switzerland
May-Jun 2001	Invited visitor, University of Salamanca, Spain
Nov-Dec 2001	Invited visitor, University of Salamanca, Spain
July 1996	Invited visitor, USRA/Goddard Space Flight Center, Greenbelt
Dec 1995	Invited visitor, USRA/Goddard Space Flight Center, Greenbelt
July-Aug 1995	Invited visitor, USRA/Goddard Space Flight Center, Greenbelt
Dec 1994	Invited visitor, USRA/Goddard Space Flight Center, Greenbelt
Oct 1993	Invited visitor, NORDITA/Niels Bohr Institute, Copenhagen
Feb-Mar 1993	Invited visitor, Theoretical Astrophysics, Fermilab
Jun-Aug 1992	Invited visitor, NORDITA/Niels Bohr Institute, Copenhagen

Feb 1992	Invited visitor, Dept of Astronomy, Univ of California, Berkeley
Feb-Apr 1991	Invited visitor, Dept of Astronomy, Univ of California, Berkeley
Nov-Dec 1990	Invited visitor, Stockholm University Observatory, Stockholm, Sweden
Feb 1990	Invited visitor, Meudon Observatory, Paris
Apr 1990	Invited visitor, Dept of Astrophysics, Oxford University
Jun 1989	Invited visitor, NORDITA/Niels Bohr Institute, Copenhagen
Jun 1988	Invited visitor, California Institute of Technology, Pasadena
May 1988	Invited visitor, Dept of Astronomy, Univ of California, Berkeley
Mar 1988	Invited visitor, Canadian Institute for Theoretical Astrophysics, Toronto
Oct 1986	Invited visitor, Los Alamos National Laboratory, Los Alamos
Jan 1986	Invited visitor, Dept of Astronomy, Univ of California, Berkeley

### MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Astronomical Society, American Physical Society, American Association for Advancement of Science

### MISCELLANEOUS

- Member of Christ's College, Cambridge and Cambridge Philosophical Society
- Conference organizing: the Centennial Lanczos Meeting (Dec 1993, Chapel Hill, NC. SOC member), "Recent advances in Astroparticle Physics" (Apr 1996, Upsala, Sweden. SOC member); "Cosmology: from COBE to galaxy formation" (Dec 1997, Copenhagen, Denmark. Chair of SOC).
- Languages: Russian (native), Hebrew (fluent), English (fluent), Latvian (good)
- Refereeing for: Astronomy and Astrophysics, Astrophysical Journal, Astrophysical Journal Letters, Europhysics Letters, Journal of Cosmology and Astroparticle Physics, Nature, Monthly Notices of RAS, Physical Review Letters, Scitizen.
- 2016, Invited Nominator for 2017 Shaw Prize in Astronomy.
- 2017, Invited Nominator for 2018 Shaw Prize in Astronomy.

## BIBLIOGRAPHY

### A. Kashlinsky

#### REFEREED PAPERS

- Kashlinsky, A. “Formation of elliptical and spiral galaxies in rotating haloes” 1982,MNRAS,200, 585-603.
- Kashlinsky, A. “On the gravitational radius - velocity dispersion correlation for clusters of galaxies” 1983,MNRAS,202,249-254.
- Kashlinsky, A. and Rees,M.J. “Formation of Population III stars and pregalactic evolution” 1983,MNRAS,205,955-971.
- Kashlinsky, A. “Dynamical friction and galaxy rotation - should mergers lead to slow rotation?” 1984,208,623-631.
- Kashlinsky, A. ”Formation of bound structures in the Universe” 1983, Ph.D. dissertation, University of Cambridge, England.
- Kashlinsky, A. “Dynamical friction in rotating systems: application to clusters and galaxies” 1986,Ap.J.,306,374-384.
- Kashlinsky, A. “Dynamical friction and evolution of the luminosity function in clusters of galaxies” 1987,Ap.J.,312,497-502.
- Kashlinsky, A. “Gravitational clustering and the origin of the correlation function of clusters of galaxies” 1987,Ap.J.,317,19-25.
- Kashlinsky, A. “On dynamical models of stellar systems of finite extent” 1988,Ap.J.,325,566-582.
- Kashlinsky, A. “Small scale fluctuations in the microwave background radiation and multiple gravitational lensing” 1988,Ap.J.(Letters),331,L1-L4.
- Kashlinsky, A. “On the coherence length of large scale peculiar velocities and gravitational clustering” 1989,Ap.J.(Letters),343,L5-L8.
- Kashlinsky, A. “Gravitational clustering of Gaussian density fluctuations and the origin of hierarchy correlations” 1991,Ap.J.(Letters),376,L5-L9.
- Kashlinsky, A. “Microwave background fluctuations implied by large-scale galaxy correlations: the minimum of  $C(0)$  and cosmological parameters” 1991,Ap.J.(Letters),383,L1-L5.
- Kashlinsky, A. “The coherence length of the peculiar velocity field in the Universe and the large-scale galaxy correlation data” 1992,Ap.J.(Letters),386,L37-L41.
- Kashlinsky, A. “Constraints on the primordial power spectrum from large-scale data: microwave background and predictions of inflation” 1992,Ap.J.(Letters),387,L1-L5.

- Atrio-Barandela, F. and Kashlinsky, A. “The Great Wall in the CfA survey: its origin and imprint on the microwave background radiation” 1992, *Ap.J.*, **390**, 322-329.
- Kashlinsky, A. “Latest COBE results, large-scale data and predictions of inflation” 1992, *Ap.J. (Letters)*, **399**, L1-L4.
- Kashlinsky, A. “Small-scale microwave background anisotropies implied by large-scale data” 1993, *Ap.J.*, **402**, 369-374.
- Kashlinsky, A. “High- $z$  objects and cold-dark-matter cosmogonies: constraints on the primordial power spectrum on small scales” 1993, *Ap.J. (Letters)*, **406**, L1-L5.
- Kashlinsky, A., Tkachev, I.I. and Frieman, J. “Microwave background anisotropy in low- $\Omega_0$  inflationary models and the scale of homogeneity in the Universe”, 1994, *Phys.Rev.Letters*, **73**, 1582-1585.
- Kashlinsky, A., Mather, J., Odenwald, S. and Hauser, M. “Clustering of the diffuse infrared light from the COBE DIRBE maps. I.  $C(0)$  and limits on the near IR background” 1996, *Ap.J.*, **470**, 681-705.
- Kashlinsky, A., Mather, J., Odenwald, S. “Clustering of the diffuse infrared light from the COBE DIRBE maps. An all-sky survey of  $C(0)$ .” 1996, *Ap.J. (Letters)*, **473**, L9-L13.
- Kashlinsky, A. and Jimenez, R. “Modified cold-dark-matter models in light of 53W091, an old galaxy at high  $z$ ” 1997, *Ap.J. (Letters)*, **474**, L81-L84.
- Kashlinsky, A. “Reconstructing the spectrum of the pregalactic density field from astronomical data” 1998, *Ap.J.*, **492**, 1-28.
- Kashlinsky, A. “Determining  $\Omega$  from the cluster correlation function” 1998, *Physics Reports*, **307**, 67-73.
- Jimenez, R. and Kashlinsky, A. “Galaxy evolution, deep galaxy counts and the near-IR cosmic infrared background” 1999, *Ap.J.*, **511**, 16-33.
- Kashlinsky, A. and Odenwald, S. “Clustering of the diffuse infrared light from the COBE DIRBE maps. III. Power spectrum analysis and possible detection of cosmic infrared background fluctuations” 2000, *Ap.J.*, **528**, 74-95.
- Kashlinsky, A. and Atrio-Barandela, F. “Measuring cosmological bulk flows via the kinematic Sunyaev-Zeldovich effect in the upcoming cosmic microwave background maps.” 2000, *Ap.J. (Letters)*, **536**, L67-L71.
- Kashlinsky, A. and Odenwald, S. “Looking behind the stars” 2000, *Science*, **289**, 246-247.
- Kashlinsky, A., Hernández-Monteagudo, C., Atrio-Barandela, F. “Determining cosmic microwave background structure from its peak distribution” 2001, *Ap. J. (Letters)*, **557**, L1-L5.
- Leisawitz, D., Armstrong, T., Benford, D., ..., Kashlinsky, A., Langer, W., ..., et al. ”Probing the Invisible Universe: The Case for Far-IR/Submillimeter Interferometry”, 2002, submitted as a ”mission white paper” to NASA’s SEU Roadmap Committee, astro-ph/0202085



- Kashlinsky, A., Odenwald, S., Mather, J., Skrutskie, M., Cutri, R. "Detection of small scale fluctuations in the near-IR cosmic infrared background from long exposure 2MASS fields", 2002, Ap.J. (Letters), **579**, L53-L57.
- Odenwald, S., Kashlinsky, A., Mather, J., Skrutskie, M., Cutri, R. "Analysis of the diffuse near-IR emission from 2MASS deep integration data: foregrounds vs the cosmic infrared background", 2003, Ap.J., **583**, 535-550.
- Hernández-Monteagudo, C., Kashlinsky, A., Atrio-Barandela, F. "Using peak distribution of the cosmic microwave background for MAP and Planck data analysis: formalism and simulations" 2004, Astron. Astrophys., **413**, 833-842
- Atrio-Barandela, F., Kashlinsky, A. and Mückel, J.P. "Measuring the Mach number of the Universe via the Sunyaev-Zeldovich effect" 2004, Ap.J.Letters, **601**, L111-L114.
- Kashlinsky, A., Arendt, R., Gardner, J., Mather, J., Moseley, S. H. "Detecting Population III stars with near-IR cosmic infrared background anisotropies." 2004, Ap.J., 608, 1-9.
- Kashlinsky, A., Arendt, R., J., Mather, J., Moseley, S. H. "Tracing the first stars with cosmic infrared background fluctuations." 2005, Nature, 438, 45-51.
- Kashlinsky, A. "Cosmic infrared background from Population III stars and its effect on spectra of high-z gamma-ray bursts" 2005, Ap.J.Letters, 633, L5-L9.
- Kashlinsky, A., Arendt, R., J., Mather, J., Moseley, S. H. "New measurements of cosmic infrared background fluctuations from early epochs" 2007, Ap.J. (Letters), 654, L5-L8.
- Kashlinsky, A., Arendt, R., J., Mather, J., Moseley, S. H. "On the nature of the sources of the cosmic infrared background" 2007, Ap.J. (Letters), 654, L1-L4.
- Kashlinsky, A. "Correcting the analysis of 'IR Anisotropies in Spitzer Goods Images...' by Cooray et al (2006) (astro-ph/0612609)" 2007, astro-ph/0701147.
- Kashlinsky, A., Arendt, R.G., Mather, J. & Moseley, S.H. "Demonstrating the negligible contribution of optical *HST* ACS Galaxies to source-subtracted cosmic infrared background fluctuations in deep *Spitzer* IRAC images" 2007, Ap.J. (Letters), 666, L1-L4.
- Atrio-Barandela, F., Kashlinsky, A., Kocevski, D. & Ebeling, H. 2007, "Measurement of the electron-pressure profile of galaxy clusters in WMAP 3-year data" 2008, Ap.J. (Letters), 675, L57-L60.
- Kashlinsky, A., Atrio-Barandela, F., Kocevski, D. & Ebeling, H. "A measurement of large-scale peculiar velocities in the local Universe: results and cosmological implications" 2008, Ap. J. (Letters), 686, L49-L52.
- Kashlinsky, A., Atrio-Barandela, F., Kocevski, D. & Ebeling, H. "A measurement of large-scale peculiar velocities in the local Universe: technical results" 2009, Ap. J., 691, 1479-1493
- Arendt, R.G., Kashlinsky, A., Moseley, S.H. & Mather, J.M. "Cosmic Infrared Background Fluctuations in Deep Spitzer IRAC Images: Data Processing and Analysis" 2010, Ap. J. Suppl., 186, 10-47.

- Kashlinsky, A., Atrio-Barandela, F., Ebeling, H., Edge, A. & Kocevski, D. “A new measurement of the bulk flow of X-ray luminous clusters of galaxies” 2010, Ap. J. (Letters), 712, L81-L85
- Atrio-Barandela, F., Kashlinsky, A., Ebeling, H., Kocevski, D. & Edge, A. “The error budget of the Dark Flow measurement” 2010, Ap. J., 719, 77-87
- Kashlinsky, A., Atrio-Barandela, F., Ebeling, H. “Measuring the dark flow with public X-ray cluster data” 2011, Ap. J., 732, 1-7.
- Fixsen, D. & Kashlinsky, A. “Probing the Universe’s Tilt with the Cosmic Infrared Background Dipole” 2011, ApJ, 734, 61-68.
- Helgason, K., Ricotti, M. & Kashlinsky, A. “Reconstructing the Near-IR Background Fluctuations from known Galaxy Populations using Multiband Measurements of Luminosity Functions”, 2012, Ap.J., 752, 113
- Kashlinsky, A., Arendt, R. G., Ashby, M. L. N., Fazio, G. G., Mather, J. & Moseley, S. H. “New measurements of the cosmic infrared background fluctuations in deep Spitzer/IRAC survey data and their cosmological implications”, 2012, Ap.J., 753, 63
- de Martino, I., Atrio-Barandela, F., da Silva, A., Ebeling, H., Kashlinsky, A., Kocevski, D., Martins, C. “Measuring the redshift dependence of the CMB monopole temperature with PLANCK data”, 2012, Ap.J., 757, 144
- Helgason, K. & Kashlinsky, A. “Reconstructing the  $\gamma$ -Ray Photon Optical Depth of the Universe to  $z \sim 4$  from Multiwavelength Galaxy Survey Data” 2012, Ap. J. (Letters), 758, L13
- Cappelluti, N.; Ranalli, P.; Roncarelli, M.; Arevalo, P.; Comastri, G. Zamorani A.; Gilli, R.; Rovilos, E.; Vignali, C.; Allevato, V.; Finoguenov, A.; Miyaji, T.; Nicastro, F.; Georgantopoulos, I.; Kashlinsky, A. “The nature of the unresolved extragalactic soft CXB”, 2012, MNRAS, 427, 651.
- Cappelluti, N., Kashlinsky, A. et al “Cross-correlating cosmic IR and X-ray background fluctuations: evidence of significant black hole populations among the CIB sources”, 2013, Ap. J., 769, 68
- Ashby, M.L.N. et al “SEDS: The Spitzer Extended Deep Survey. Survey Design, Photometry, and Deep IRAC Source Counts”, 2013, Ap.J., 769, 80
- Atrio-Barandela, F., Kashlinsky, A., Ebeling, H. & Kocevski, D. “Cosmic Microwave Background filters and the Dark-Flow measurement” 2013, ApJ, arxiv:1211.4345
- Helgason, K., Cappelluti, N., Hasinger, G., Kashlinsky, A. & Ricotti, M. “The contribution of  $z < 6$  sources to the spatial coherence in the unresolved cosmic near-IR and X-ray backgrounds”, 2014, ApJ, 785, 38
- Atrio-Barandela, F. & Kashlinsky, A. “Probing the Epoch of Pre-reionization by Cross-correlating Cosmic Microwave and Infrared Background Anisotropies” 2014, Ap.J. (Letters), 797, L26
- Kashlinsky, A.; Mather, J. C., Helgason, K., Arendt, R. G., Bromm, V. & Moseley, S. H.

“Reconstructing Emission from Pre-reionization Sources with Cosmic Infrared Background Fluctuation Measurements by the JWST”, 2015, Ap. J., 804, 99

- de Martino, I., Gnova-Santos, R., Atrio-Barandela, F., Ebeling, H., Kashlinsky, A., Kocevski, D. & Martins, C. J. A. P. “Constraining the Redshift Evolution of the Cosmic Microwave Background Blackbody Temperature with PLANCK Data.” 2015, 808, 128

- Atrio-Barandela, F., Kashlinsky, A., Ebeling, H., Fixsen, D. J. & Kocevski, D. “Probing the Dark Flow Signal in WMAP 9 -Year and Planck Cosmic Microwave Background Maps”, 2015, Ap. J., 810, 143

- Kashlinsky, A., Arendt, R.G.A., Atrio-Barandela, F. & Helgason, K. “Lyman-tomography of cosmic infrared background fluctuations with *Euclid*: probing emissions and baryonic acoustic oscillations at  $z \geq 10$ ”, 2015, Ap.J. (Letters), 813, L12

- Helgason, K., M. Ricotti, A. Kashlinsky & Bromm, V. “On the physical requirements for a pre-reionization origin of the unresolved near-infrared background” 2016, MNRAS, 455, 282-294

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