Curriculum Vitæ

Manuel Linares

Personal

Name: *Manuel Linares Alegret.*
Date of birth: *October 14^{th}, 1980.*
Place of birth: *Barcelona, Spain.*
Nationality: *Spanish.*

Contact

MIT – Kavli Institute for Astrophysics and Space Research
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Employment

2009 - present: *Rubicon postdoctoral fellow.*
MIT – Kavli Institute for Astrophysics and Space Research.
Sponsor: Prof. dr. Deepto Chakrabarty.

2005 - 2009: *PhD position.*
Astronomical Institute, University of Amsterdam.

Education

2005 - 2009: *Ph. D. in Astronomy.*
Astronomical Institute, University of Amsterdam.
"Accretion states and thermonuclear bursts in neutron star X-ray binaries."
Supervisor: Prof. dr. Michiel van der Klis.

October 2004 - May 2005: *Research project.*
Astronomical Institute, University of Amsterdam.
"Kilohertz quasi-periodic oscillations."
Supervisor: Prof. dr. Michiel van der Klis.

January - June 2004: *Research project.*
Astronomy Department, University of Barcelona.
"Cosmological use of type Ia Supernovæ."
Supervisor: Prof. dr. Ramón Canal.

1998 - 2004: *Licenciatura en Física. Especialidad: Astrofísica.*
University of Barcelona. (B. Sc. & M. Sc. in Physics - Astrophysics)

Awards

Rubicon Grant *awarded by the Physics division of the Netherlands organization for Scientific Research, 2009.*
Taken at the Kavli Institute for Astrophysics and Space Research at the Massachusetts Institute of Technology.

Grant *awarded by the Spanish Ministry of Education for outstanding undergraduate students to initiate scientific research, 2004.*
Taken at the astronomy department of the University of Barcelona.

Silver medal *in the Spanish national competition in physics: "Olympic games of physics", Ourense, Spain, 1998.*

Observing

PI on accepted proposals:

⋆ *Accretion disks in strong gravity: Fe lines vs. kHz QPOs and spectral states.*
***Suzaku**, AO-4, Fall 2009. **100 ksec**.*

⋆ *XMM observation of IGR J00291+5934.*
***X-ray Multi-mirror Mission**, ToO, Aug. 2008. **30 ksec**.*

⋆ *WSRT observation of an accreting millisecond pulsar in outburst: IGR J00291+5934.*
***Westerbork Synthesis Radio Telescope**, ToO, Aug. 2008. **36 ksec**.*

⋆ *Swift observations of neutron star transients in the decay to quiescence.*
***Swift**, three ToO programs for a total of **50 ksec**.*

⋆ *Swift observations of accreting millisecond pulsars in outburst.*
***Swift**, two ToO programs for a total of **14 ksec**.*

⋆ *Extended timing observations of the accreting millisecond pulsar IGR J00291+5934.*
***Rossi X-ray Timing Explorer**, AO-11. **400 ksec**.*

CoI on accepted proposals:

⋆ *A deep look at accretion disks: Fe lines, kHz QPOs and spectral states.*
***X-ray Multi-mirror Mission**, AO-8, PI: Altamirano.*

⋆ *Observations of the microquasar GRS 1915+105 in quiescence.*
***Chandra**, AO-10, PI: Soleri.*

⋆ *XMM-Newton observations of very faint X-ray transients.*
***X-ray Multi-mirror Mission**, AO-7, PI: Wijnands.*

Service

Member *of the scientific and local organizing committee of the workshop "A decade of accreting millisecond X-ray pulsars", held in Amsterdam in April 2008.*

Co-editor *of the proceedings of the workshop "A decade of accreting millisecond X-ray pulsars", held in Amsterdam in April 2008 (American Institute of Physics Journals).*

Reviewer *within NASA's Swift observatory time allocation committee.*

Referee *for Astronomy & Astrophysics and Monthly Notices of the Royal Astronomical Society.*

Outreach *lectures and articles for several Spanish institutions, 2006. Astronomical outreach for the "open day" of the University of Amsterdam, 2004 - 2008.*

Conferences

IAU general assembly. Rio de Janeiro, Brazil, August 2009.
***Talk:** "Accretion states of neutron stars: luminosity, variability and spectra."*

A decade of accreting millisecond X-ray pulsars. Amsterdam, The Netherlands, April 2008.
***Talk:** "Timing the accretion flow around AMPs."*

HEAD meeting. Los Angeles, USA, March 2008.
***Poster:** "Accretion onto neutron stars: states and state transitions."*

Astrophysics of compact objects. Huangshan, China, July 2007.
***Talk:** "Accretion states of accreting neutron stars."*

The multicoloured landscape of compact objects and their explosive progenitors. Cefalú, Italy, June 2006.
***Talk:** "Accreting millisecond pulsars: X-ray variability from fast spinning neutron stars and their surroundings."*

Dutch astronomical conference. Ameland, The Netherlands, May 2006.
***Talk:** "Discovery of kHz QPOs in XTE J1807-294."*

Seminars

Columbia Astrophysics Laboratory, New York, February 2009.
Seminar: *"Accretion states of neutron stars".*

Harvard-Smithsonian Center for Astrophysics, Cambridge, January 2009.
HEAD lunch talk: *"X-ray variability in neutron star LMXBs".*

Massachusetts Institute of Technology, Cambridge, January 2009.
Special HEA talk: *"Accreting neutron stars".*

NASA-NSSTC/MSFC, Huntsville, January 2009.
Space science colloquim: *"Type I X-ray bursts in hard X-rays".*

McGill University, Montreal, January 2009.
Astrophysics seminar: *"Accreting neutron stars".*

Teaching

X-ray timing techniques. *Hands-on session.*
1st. school on multi-wavelength BH astronomy. University Paris Diderot, 2009.

Super-orbital variability in X-ray binaries. *Supervisor.*
M. Sc. research project (A. Tol), University of Amsterdam, 2008.

Astrophysics of compact stars. *Teaching assistant.*
Third year B. Sc. course, University of Amsterdam, 2008.

Astronomy practicum. *Project supervisor: "Optical spectroscopy of Arcturus".*
Third year B. Sc. course, University of Amsterdam, 2007.

Galaxies. *Teaching assistant.*
Second year B. Sc. course, University of Amsterdam, 2006.

Solar system. *Teaching assistant.*
First year B. Sc. course, University of Amsterdam, 2005.

Mathematics & Physics. *Private teacher.*
Undergraduate students, Barcelona, 1999-2003.

Schools

Gravitation and binary systems.
SIGRAV school. Como, Italy, May 2005.

E.O.S. for the dense matter of neutron stars.
Doctorate lectures by Herbert Müther. Barcelona, Spain, March 2004.

Shock Waves in Astrophysics.
Doctorate lectures by Jorge Cantó. Barcelona, Spain, February 2004.

Data

RXTE: *Vast experience in timing (PCA) and spectral (PCA & HEXTE) analysis of large datasets taken by the Rossi X-ray Timing Explorer.*

Swift, XMM, Chandra, Integral, Fermi, Suzaku: *Experience in imaging, spectral and timing analysis with these high-energy instruments.*

Software: *Expertise in Ftools, Xspec, Xselect and other (self-developed) software for high-energy astrophysics data analysis. Basic knowledge of the optical and radio data reduction procedures implemented in IRAF and AIPS.*

Programming

Perl, awk, tc-shell, tcl (Xspec scripting): *Proficient use.*

Fortran, C: *Intermediate knowledge.*

Assembler, HTML, Mathematica, IDL: *Basic knowledge.*

Languages

Spanish, Catalan: *Native command.*

English, Italian: *Proficient use.*

French, Dutch: *Intermediate knowledge.*

Extra

Music: *Performances as a percussionist in renowned auditoriums across Spain, Greece and The Netherlands. "Flamenco" percussion workshops and lessons given in Barcelona and Amsterdam, 2000 - 2008.*