

# Giorgio Calderone

## *Curriculum Vitæ et Studiorum*



### Personal information

Name Giorgio Calderone  
Date of birth 23-04-1976  
Place of birth Palermo (Italy)  
Nationality Italian  
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### Education

- Mar. 2013 **PhD in Physics** *(PDF copy available at: <http://goo.gl/U31xTR>)*  
*Università degli studi di Milano-Bicocca, Osservatorio di Brera*  
Thesis title: "The Big Blue Bump-Accretion Disk connection in Type 1 Active Galactic Nuclei: a new way to estimate the black hole mass."  
(supervisor: prof. Monica Colpi)
- Oct. 2009 **Master degree in Physics** *(grade 110/110 cum laude)*  
*Università degli studi di Palermo*  
Thesis title: "Search for precursor activity in Swift/BAT  $\gamma$ -ray bursts"  
(supervisor: prof. N. Robba)
- Mar. 2007 **Bachelor degree in Physics** *(grade 110/110 cum laude)*  
*Università degli studi di Palermo*  
Thesis title: "Physics of solar corona and analysis of X-ray observations"  
(supervisor: prof. G. Peres)

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## Job experiences

### As research fellow

- Ott. 2014 Postdoctoral research fellow at INAF–Osservatorio Astronomico di Trieste:  
*Development of observational template and high level control software for the high resolution spectrograph ESPRESSO.*
- Apr. 2013 Postdoctoral research fellow at INAF–Osservatorio Astronomico di Brera:  
*A closer view of the physics of GRBs.*

### As IT consultant in research institutes

- 2005–2010 Software development  
*INAF–Palermo and INAF–Bologna (Italy)*
- MCS: My Customizable Server
  - MyRO: My Record Oriented Privilege System
  - DIF: Dynamic Index Facilities
- These packages are still under active development  
([ross.iasfbo.inaf.it/MCS](http://ross.iasfbo.inaf.it/MCS)).
- 2005 Solution optimization through evolutionary algorithms  
*Università di Palermo (Italy)*
- 2005 Software porting to GNU/Linux  
*Università di Ferrara (Italy)*
- 2002 Code parallelization (MPI)  
*Università di Palermo (Italy)*

### As IT consultant in private companies

- 2000–2002 Banking data warehouse
- 2000 Web banking applications
- 1998–2000 Multimedia (advertising) software

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## Other experiences

- Amateur astronomy lecturer
- Amateur astronomer at public observing sessions and planetarium sessions
- Member of amateur astronomy associations:
  - Specula panormitana ([www.speculapanormitana.it](http://www.speculapanormitana.it))
  - Star freedom ([www.starfreedom.it](http://www.starfreedom.it))

## Publications

### Refereed

- Calderone et al.:  
“*There is a short gamma-ray burst prompt phase at the beginning of each long one*”  
MNRAS, 448, 403, 2015  
<http://adsabs.harvard.edu/abs/2015MNRAS.448..403C>
- Bernardini et al.  
“*Comparing the spectral lag of short and long gamma-ray bursts and its relation with the luminosity*”  
MNRAS, 446, 1129, 2015  
<http://adsabs.harvard.edu/abs/2015MNRAS.446.1129B>
- Bernardini et al.  
“*A magnetar powering the ordinary monster GRB 130427A?*”  
MNRAS, 439, L80, 2014  
<http://adsabs.harvard.edu/abs/2014MNRAS.439L..80B>
- Maselli et al.  
“*GRB 130427A: A Nearby Ordinary Monster*”  
*Science*, 343, 48, 2014  
<http://adsabs.harvard.edu/abs/2014Sci...343...48M>
- Calderone G., Ghisellini G., Colpi, M., Dotti M.  
“*Black hole mass estimate for a sample of radio-loud narrow-line Seyfert 1 galaxies*”  
MNRAS, 431, 210, 2013  
<http://adsabs.harvard.edu/abs/2013MNRAS.431..210C>
- Calderone G., Sbarrato T., Ghisellini G.  
“*The Wide-field Infrared Survey Explorer view of the disc-torus connection in  $z \sim 0.6$  active galactic nuclei*”  
MNRAS, 425, L41, 2012.  
<http://adsabs.harvard.edu/abs/2012MNRAS.425L..41C>
- Calderone G., Ghisellini G., Colpi M., Dotti M.  
“*B2 0954+25A: a typical Fermi blazar or a  $\gamma$ -loud Narrow Line Seyfert 1 ?*”  
MNRAS 424, 3081, 2012.  
<http://adsabs.harvard.edu/abs/2012MNRAS.424.3081C>
- Calderone G. et al.  
“ *$\gamma$ -ray variability of radio-loud narrow-line Seyfert 1 galaxies*”  
MNRAS, 413, 2365, 2011.  
<http://adsabs.harvard.edu/abs/2011MNRAS.413.2365C>

- Nicastro L., Calderone G.  
*"Multiple Depth DB Tables Indexing on the Sphere"*  
 Advances in Astronomy, 2010, 524534, 2010.  
<http://www.hindawi.com/journals/aa/2010/524534/>

## Proceedings

- Ghirlanda G., Bernardini M.G., Calderone G., D'Avanzo P.  
*"Are short Gamma Ray Bursts similar to long ones?"*  
 J. High Energy Astrophysics 2015  
<http://dx.doi.org/10.1016/j.jheap.2015.04.002>
- G. Calderone  
*" $\gamma$ -ray variability of radio-loud Narrow-line Seyfert 1 galaxies"*  
 Proc. of "Narrow-Line Seyfert 1 Galaxies and their Place in the Universe"  
 (PoS), April 2011, Milano.  
<http://adsabs.harvard.edu/abs/2011nlsg.confE..45C>
- Calderone G., Romano P., Mangano V., Cusumano G., Troja E.  
*"Search for GRB precursors in the Swift/BAT archive"*  
*Proc. of "Gamma ray burst: 6-th Huntsville Symposium"*  
 AIP volume 1133, pp. 394-396, October 2008, Huntsville (Alabama, USA).  
<http://adsabs.harvard.edu/abs/2009AIPC.1133..394C>
- Calderone G., Romano P., Mangano V., Cusumano G.  
*"Search for precursor activity in Swift/BAT  $\gamma$ -ray bursts."* (PoS)  
 Proc. of "7-th INTEGRAL Workshop", September 2008, Copenhagen,  
 (Denmark).  
<http://adsabs.harvard.edu/abs/2008int..workE..18C>
- Collura A., Barbera M., Varisco S., Calderone G. et al.  
*"Calibration of the Sphinx experiment at the XACT facility in Palermo"*  
 Proc. SPIE 7011, "Space Telescopes and Instrumentation 2008: Ultraviolet  
 to Gamma Ray", July 2008, Marseille (France).  
<http://adsabs.harvard.edu/abs/2008SPIE.7011E..82C>
- Nicastro L., Calderone G.  
*"Indexing Astronomical Database Tables using HTM and HEALPix"*  
 Proc. ADASS, vol. 394, September 2007, London (UK).  
<http://adsabs.harvard.edu/abs/2008ASPC..394..487N>

## Peer reviewing

Referee of scientific publications in the following journals:

- *Astrophysical Journal*;
- *Astronomy & Astrophysics*;
- *Monthly Notices of the Royal Astronomical Society*;

## Teaching activities

- Teaching duties for the High-energy Astrophysics course of Prof. M. Colpi, at Università degli Studi di Milano-Bicocca (academic years, 2011–12, 2012–2013)
- Co-supervisor for a “Master thesis” at University of Southampton (UK)

## Conferences & Schools

### Invited talks

- May 2015 INAF (Palermo):  
*“Comparison of black hole mass estimation method for a sample of 290 narrow-line Seyfert 1 galaxies: where do emission take place?”*
- Sept. 2014 Third Bego Rencontres, IRAP Ph.D. Erasmus Mundus school, Nice (France):  
*“There is a short GRB (prompt phase) at the beginning of each long one.”*

### Conferences & workshops

- Dic. 2014 *ESPRESSO Progress Meeting*, Lisbon (Portugal)
- Oct. 2014 *ESO Instrument Control Software*, München (Garching)
- May 2013 *The restless nature of AGNs*, Naples (Italy)
- Sep. 2012 *AGN 10*, Rome (Italy)
- July 2010 *COSPAR 2010*, Bremen (Germany)
- May 2010 *AGN 9*, Ferrara (Italy)

### Attended schools

- Sep. 2011 *Beijing international summer school*, Beijing (China)  
*“The physics and evolution of AGN”*
- Mar. 2010 *PhD school “F. Lucchin”*, Madonna di Campiglio (Italy)  
*“Gravitational lenses and dark matter, Black holes in astrophysics”*
- Sep. 2004 Catania (Italy)  
*“Advanced course on parallel computation and grid computingd (CINECA)”*

## Software expertise

<i>VLT–software</i>	Development of ESPRESSO instrument templates (Tcl) and software control testing procedures (C, Tcl, Perl)
<i>Languages</i>	C/C++, FORTRAN (77, 90), Java, Pascal, IDL, SAS, Tcl/Tk, Perl, PHP, HTML, Bash and C shell, etc...
<i>O.S.</i>	GNU/Linux, Max OS X, Microsoft windows
<i>Database</i>	MySQL, PostgreSQL, Microsoft access
<i>Astronomy software</i>	FV, FTOOLS, DS9, XSPEC, Aladin, Topcat, IDL Astronomy Library
<i>Astronomy services</i>	ADS, NED, Simbad, Vizier
<i>Data reduction</i>	SDSS, Swift (UVOT, XRT, BAT), Chandra, Fermi/LAT
<i>Other</i>	L <sup>A</sup> T <sub>E</sub> X

## Languages

- Italian: native speaker
- English: fluent

## Hobbies

- Playing guitar (classical, rock, bossa nova, etc...)
- Photography (astrophotography, naturalistic, etc...)
- Amateur astronomy