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Via del Fosso del Cavaliere, 100  
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Astronomical Data Analysis Software & Systems XIII 2003  
CDS, Observatoire Astronomique de Strasbourg, France.

Object: Financial Aid Request

#### Applicant Information

- Name of Applicant: Francesco Lazzarotto
- Position Title: PhD Student
- Institution: IASF-CNR Roma, DISP Tor Vergata University, Rome
- Postal Address: Via del Fosso del Cavaliere, 100 - 00133 Roma, Italy
- Email Address: [lazza@rm.iasf.cnr.it](mailto:lazza@rm.iasf.cnr.it)
- Phone Number: (39) 06 4993 4565
- Citizenship: Italian
- Academic Level: Graduate

#### Vita and Bibliography

- Date & Place of Birth: 10-09-1971 - Latina, Italy
- State Secondary School: 'Liceo' specializing in scientific studies.
- Degree: "Scienze dell'Informazione" (Computer Science) at "La Sapienza" University of Rome, vote 98/110, Thesis "Automatic research of transient events and problems of archiving and analysis on the data of X-Ray Astronomy Satellite BeppoSAX".
- PhD: Attending at the second year of the PhD course in "Computer Science and Control Theory" at the "Tor Vergata" University of Rome.
- Research Interests: Design and Implementation of Information Systems for large amounts of scientific data, Data Mining and Knowledge Extraction.

#### Bibliography

- M. Feroci, C.L. Bianco, F. Lazzarotto, A. Mattei, G. Ventura, E. Costa (IAS/CNR), F. Frontera (ITESRE/CNR), "A robust Filter for the BeppoSAX Gamma Ray Burst Monitor Triggers", astro-ph/9912488, proceedings of the 5<sup>th</sup> Huntsville Symposium on Gamma Ray Burst, October 1999.
- M. Tavani, E. Costa, M. Feroci, F. Lazzarotto *et al*, "the AGILE Instrument", Proceedings of SPIE Vol. 4851, 2003.
- F. Lazzarotto, M. Feroci e M. T. Paziienza, "A computational theoretical approach for mining data on transient events from databases of high energy astrophysics experiments", proceedings of "Gamma-Ray Burst in the Afterglow Era: 3rd Workshop", september 2002 (in press).

## Presentation Information

•Requested Presentation Type: Poster

•Presentation Title:"Modeling and developing an information system for the SuperAGILE experiment"

•Presentation Abstract:"The data streams expected from the SuperAGILE instrument (SA), onboard the AGILE gamma-ray mission, are continuous and massive flows (20 kb/s) of raw information sent to ground for a minimum of 3 years, plus a larger rate during ground tests. Data coming from the detector concern physical measurements and equipment housekeepings. We developed an information system to handle and archive the data produced at first by the prototypes and later on by the flight model. A big effort in the design phase has led us to achieve an integrated modular software system responding to most of the functions needed to extract knowledge among SA archives. We will present the formal description of the data, the relations among them and the operations applied on data with the aid of formal instruments such as Entity-Relationship and UML diagrams. We will also show an implementation of the system with functions of reception, pre-processing, archiving and analysis developed with Object Oriented and DBMS open source software instruments."

•Requested Financial Aid: Hotel (4 nights), Registration Fee.  
A presentation letter will be sent via email by my reference

Dr. Enrico Costa  
Head, High Energy Division,  
IASF-CNR Rome.  
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Best Regards

Francesco Lazzarotto  
PhD student, High Energy Astrophysics Division  
IASF-CNR, Rome.  
DISP-Tor Vergata University, Rome.

Date 18-07-2003.