

Italy INAF Data Center Report

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Abstract This report summarizes the activities of the Italian INAF VLBI Data Center. Our Data Center is located in Bologna, Italy, and it belongs to the Institute of Radioastronomy, which is part of the National Institute for Astrophysics.

1 Introduction

The main INAF analysis activity and storage is concentrated in Bologna, where we store and analyze single databases, using CALC/SOLVE and the newer vSolve software.

IRA started to store geodetic VLBI databases in 1989. At the very beginning the databases archived in Bologna mostly contained data from 1987 onward that included European antennas. In particular, most of the databases available here had VLBI data with at least three European stations. Additionally, we stored all the databases with the Ny-Ålesund antenna observations. In 2002 we decided to store the complete set of databases available on the IVS Data Centers, although we limited the time span to the observations performed from 1999 onwards. All the databases were processed and saved with the best selection of parameters for the final arc solutions. In order to perform global solutions, we have computed and stored the superfiles for all the databases. Moreover, some Italian VLBI (VITA) experiments have been performed in recent years, and the relevant databases are available.

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2 Computer Availability and Routing Access

Currently we have two Linux workstations to which the full VLBI data set was migrated. One computer, on which the latest release of the Mark 5 Calc/Solve is installed, has the Internet address `geovlbi.ira.inaf.it`. The vSolve software is installed on a more recent Linux workstation, and its Internet address is `antar-tide.ira.inaf.it`. Since 2016, a new server with a storage capacity of 11 TB has been available, and, therefore, all experiments performed in the previous years were downloaded and archived, thus completing the catalog. After the transition from the MK3-database to the vgosDB format, a new directory has been set up. All databases already analyzed have been converted to the new format. At present, the MK3-databases are stored in the following directories:

- 1 = `/iranet/groups/geo/dbase1`
- 2 = `/iranet/groups/geo/dbase2`
- 3 = `/iranet/groups/geo/dbase`
- 4 = `/iranet/groups/geo/dbase3`
- 5 = `/iranet/groups/geo/dbase4`

The vgosDB databases can be found in the directory `/iranet/groups/geo/vgosDb`, while the superfiles are stored in `/iranet/groups/geo/super.c11`. The list of superfiles is summarized in the file `/iranet/groups/geo/solve/mk5/save.files/SUPCAT`.

The username for accessing the databases is `geo`. The password may be requested by sending an e-mail to `negusini@ira.inaf.it`.