Italy CNR Data Center Report

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Abstract

This report summarizes the situation of the Italy CNR VLBI data center. It will give fundamental information about the structure of the center, its locations, and its activities.

1. Introduction

The Italy CNR VLBI data center is the joint effort of:

a) the Istituto di Radioastronomia (Institute of Radio Astronomy IRA) of the Consiglio Nazionale delle Ricerche (CNR) located in Bologna, where the research activity is carried out, both in radio astronomy and geodesy, and the two VLBI antennas in Medicina (near Bologna) and Noto (in Sicily) are managed,

b) and in its section located in Matera at the Center of Spatial Geodesy (of the Italian Space Agency), where the main research activity in geodesy is carried out, and a VLBI antenna, a laser ranging telescope, a permanent GPS receiver and a PRARE antenna are located.

At the moment, the main analysis activity and storage is concentrated in Matera, where we store and analyze single databases, using CALC/SOLVE software. We are using f-solve regularly updated. The IRA has started to store VLBI geodetic databases from 1989, but the databases archived in Bologna mostly contain data including European antennas, starting from 1987. In particular most of the databases present here have VLBI data with at least three European antennas. However we are also storing all the databases with the Ny-Ålesund antenna data. During 2002 and 2003, we have stored in Matera all the 2000-2003 databases available on the IVS data centers. All the databases have been processed and saved with the best selection of the parameters for the final arc solutions.

In some cases we have introduced the wet delay coming from GPS into the European databases (at present only for EUROPE experiments for the years 1998 and 1999), as if it was produced by a WVR. Also these databases are available and stored with a different code from the original databases. For this we have produced a modified version of DBCAL, available to external users.

In Matera we have stored part of the databases and all the superfiles and we are performing there global solutions, too.

2. Computer Availability and Routing Access

In Bologna the main computer is a HP 785/B2600 workstation. The internet address of this computer is boira3.ira.cnr.it and the databases are stored in different directories and in different disks as well. The complete list of directories where databases are stored is the following:

1 = /data1/mk3/data1
2 = /data1/mk3/data2
4 = /data6/dbase6
6 = /data5/dbase5
5 = /data4/dbase4

    7 = /data7/dbase7
    8 = /data8/dbase8
    9 = /data9/dbase9
    10= /geo/data
    11= /geo/1999
    12= /geo/2000
The username for accessing the database at the moment is geo. The password can be requested
by sending an e-mail to tomasi@ira.cnr.it.

    In Matera the main computer is an HP282 computer with internet name hp-j.itis.mt.cnr.it.
The databases are stored in different directories and the full list follows:
    1 = /data1/mk3/data1
    2 = /data1/mk3/data2
    6 = /data5/dbase5
    5 = /data4/dbase4
    7 = /data8/dbase8
    8 = /data10/dbase10
    9 = /data13/dbase13
    10 = /data14/dbase14
The super files are stored in different directories:
    /data2/super
    /data10/super10
    /data9/super9
    /data8/super8
The list of superfiles is stored in the file /data6/solve_files/SUPCAT. The area for data storage
has been enlarged to 250 gigabytes with the installation of a new server. The data can be accessed
using the username geo, and the password can be requested from tomasi@ira.cnr.it.