Nobeyama Radio Interferometer (NoRI)
Analysis Manual
ver. 0.0

T. Yokoyama

July 7, 2000

1 Introduction

This is a manual for analysis of the data obtained by Nobeyama Radio Interferometer (NoRI; stop operation in Jul 1992; Nakajima et al. 1980)

For any questions and requests, please send an e-mail to

`nsro-service@solar.nro.nao.ac.jp`

The latest information on NoRS is updated on NSRO Web site. The URL is

`http://solar.nro.nao.ac.jp/nori/`

2 How to setup

(1) Installation of the *SolarSoftware*.

Install the SolarSoftware (SSW). If this was not installed, please contact your system manager. The primary distribution site for SolarSoftware is: `http://www.lmsal.com/solarsoft/`

(2) Setup of your personal environment

Include the followings in your environment setup file (`~/.cshrc`). `setenv SSW` *SSW-directory*[1]

```
setenv SSW_INSTR ''nori''
setenv NORS ${SSW}/radio/nori
source ${SSW}/gen/setup/setup.ssw
source ${NORI}/setup/setup.nori
```

Note that the enviroment variable `${SSW}` can be different (Ask your system manager)[2]. In case you analyze many kinds of data at the same time, define SSW_INSTR as follows, e.g.

```
setenv SSW_INSTR ''nori sxt nors''
```

3 Where is the Data ?

3.1 Raw Data

Some raw NoRI data are put in the NSRO archive. You can obtain them by anonymous FTP.

[1] `/sgi1/ssw` in NSRO

[2] In NSRO, it is `/sgi1/ssw`

4 Analysis

4.1 Start Analysis

The NoRI IDL procedures described in this section all depend on the SolarSoftware (SSW). When you start the analysis, start up the SSW/IDL as follows:

`unix%` **sswidl <CR>**

5 Read the Data

In order to read the data into IDL session, give the file name as follows:

`IDL>` **file='./if911202'**
`IDL>` **nori_rd_dat,file,index,data <CR>**

In order to read the data in specified duration:

`IDL>` **timerange=['1991-12-2 2:00','1991-12-2 4:00'] <CR>**
`IDL>` **nori_rd_dat,file,index,data,timerange=timerange <CR>**

6 Plot

For plotting,

`IDL>` **nori_plot,index(0),data(*,0,0) <CR>**

A NoRS data archive: anonymous FTP

The Nobeyama Solar Radio Observatory (NSRO/NAOJ) has prepared the anonymous FTP server for the NoRS data archive. The URL is

`ftp://nsro-archive.nro.nao.ac.jp/pub/nori`

If you need to transfer a large amount of data , please contact

`nsro-service@solar.nro.nao.ac.jp`
We will make and mail a CD-ROM for you. The network capability in Nobeyama is limited.

B Acknowledgement

We thank the following people. SolarSoftware is a software package for analysis of Solar Data on IDL. That is supported under various NASA contracts (SXT/EIT/MDI/TRACE/YPOP etc.) and is all in the public domain. IDL is a product by Research System Inc.

References

Nakajima et al., "A New 17-GHz Solar Radio Interferometer at Nobeyama", 1980, PASJ, 32, 639