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# Tutorial on the OSOAA radiative transfer model

## *Ocean Successive Orders with Atmosphere - Advanced*

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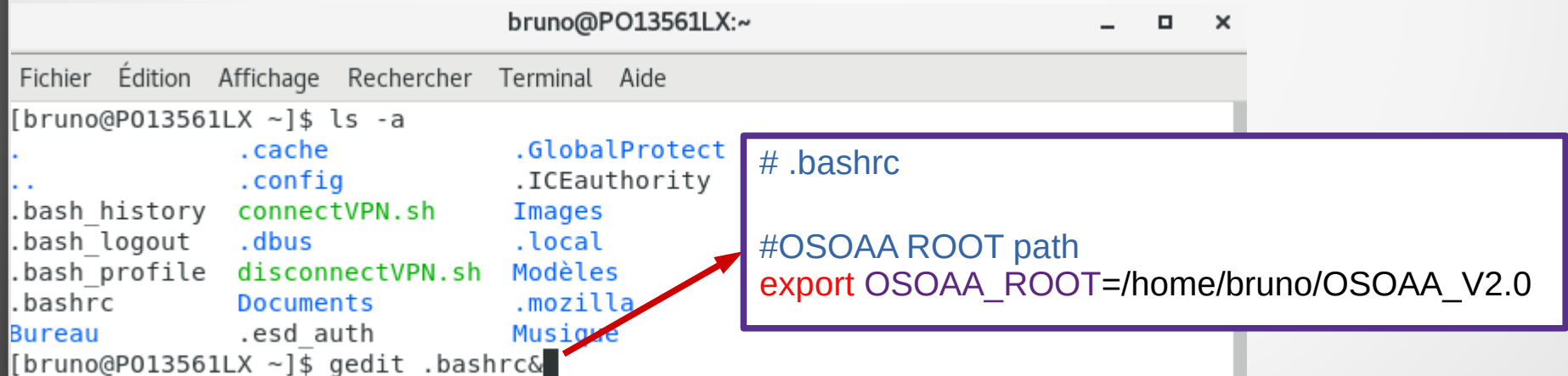
Sorbonne Université (France)

# Outlines

- Software installation
- Graphical User Interface (GUI)
- Running the model using GUI
- Output files presentation
- Running the model using command files
- Examples of simulations

# Software installation

- Download site (CNES website):  
<https://github.com/CNES/RadiativeTransferCode-OSOAA>
- Deposite on personnal OSOAA root repertory
- Define the OSOAA\_ROOT path



```
bruno@PO13561LX:~  
Fichier Édition Affichage Rechercher Terminal Aide  
[bruno@PO13561LX ~]$ ls -a  
.  
..  
.bash_history  
.bash_logout  
.bash_profile  
.bashrc  
Bureau  
.cache  
.config  
connectVPN.sh  
.dbus  
disconnectVPN.sh  
Documents  
.esd_auth  
.GlobalProtect  
.ICEauthority  
Images  
.local  
Modèles  
.mozilla  
Musique  
# .bashrc  
#OSOAA ROOT path  
export OSOAA_ROOT=/home/bruno/OSOAA_V2.0  
[bruno@PO13561LX ~]$ gedit .bashrc
```

# Software installation

- List of directories

**doc /**  
→ Documentation

**ihm / (GUI)**  
→ Graphical User Interface tools

**src /**  
→ Source programs

**inc /**  
→ Constant parameters  
(e.g., number of Gauss angles, threshold values,...)



**gen /**  
→ Makefiles for the compilation

**obj /**  
→ Compiled files

**exe /**  
→ Executable code

**fic /**  
→ Ancillary database

(e.g. aerosol models, seabed reflectance, ...)

- Compilation :
  - cd \$OSOAA\_ROOT/gen
  - make -f makefile\_OSOAA.gfortran (or \*.g77 or \*.f77)

# Launch of OSOAA model

- GUI launch
  - Prerequisite

Test : « java -version »  
Must be version 16 or higher
  - `cd $OSOAA_ROOT/ihm/bin`  
`./runOSOAAUI.bash`