

Red Giants with COROT

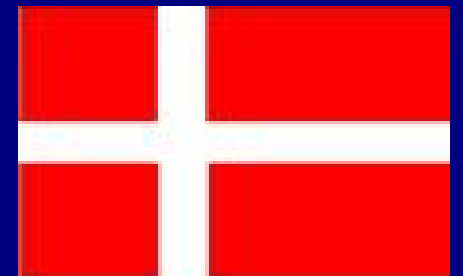
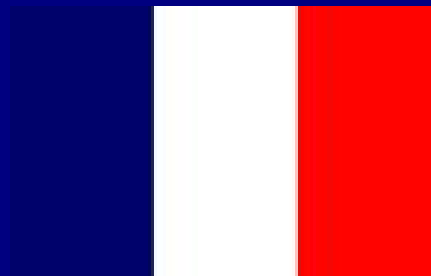
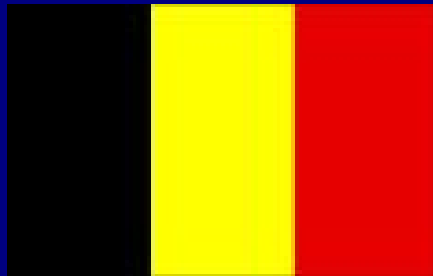
J. De Ridder

(Red Giant Team Coordinator)

Who are we?

- Consortium of 8 institutes
- 16 people
- 6 countries

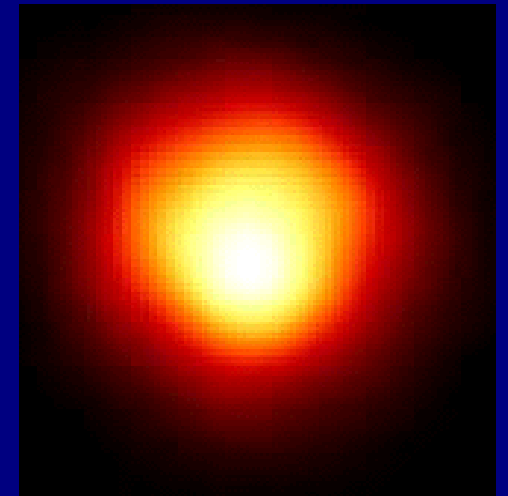
*Interested people
always welcome!*



Our interests

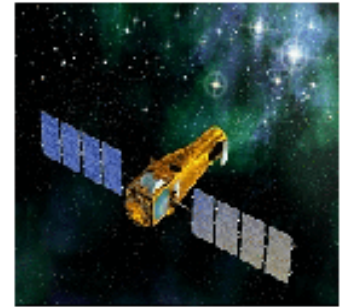
To study a fairly large Corot sample of Red Giants to learn more about:

- Solar-like oscillations in red giants
- Mira-like oscillations in red giants
- Red giants on the AGB
- Light outbursts in red giants
- Convection in red giant atmospheres
- ...



Webpage

Pulsating Red Giants



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Links

COROT

- The **COROT webpage** at Marseille
- The **COROT webpage** at CNES with access to **Corotsky**
- The **Additional Program Working Group webpage** (resp. **Werner Weiss**)
- The **Exo-planet ground-based observations working group webpage** (resp. **Magali Deleuil**)
- The **Seismology working group** (resp. **Eric Michel**)
- The **Exoplanet Working Group** (resp. **Pierre Barge**)
- The COROT week webpages: **CW3**, **CW5**, **CW6**, **CW7**
- The **Additional Program AO Issue 2005**

Databases

- **VISAT** Vienna Selection of Astronomical Targets
- **NEMO** Vienna New Model grid of stellar atmospheres
- **USNO-B1.0** catalogue accessible through **Vizier**
- **DENIS** deep near-infrared survey accessible through **Vizier**
- **2MASS 2** micron all-sky survey accessible through **Vizier**
- **GST-2** Guide star catalogue accessible through **Vizier**
- **Hipparcos and Tycho** catalogues accessible through **Vizier**

Note that cross-linking databases can be done with the **Aladin Sky Atlas**

Corot Data


- About 20% of the stars in exo-planet field will be giants



Both case studies and statistical studies

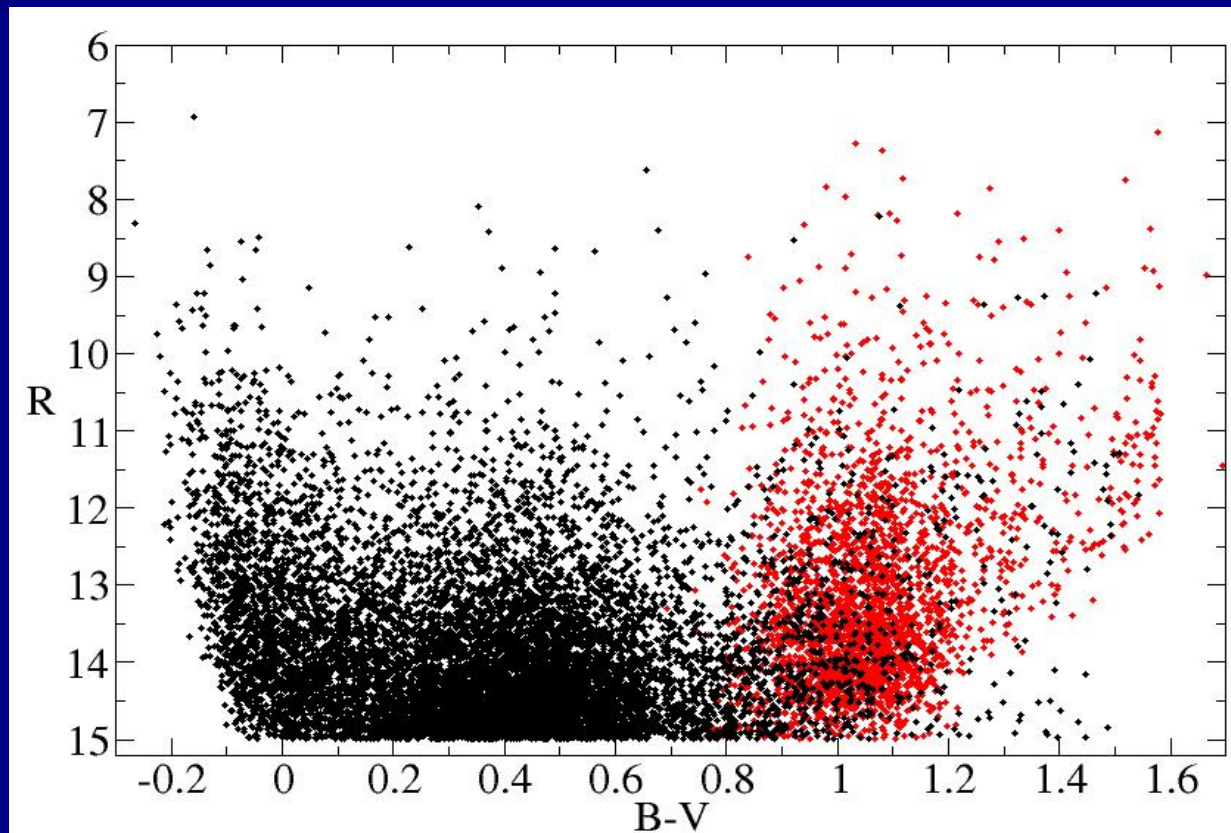
- Our AO response will request many red giants in exo-planet fields of both long and short runs.

Target Selection

- Primary task: identification of the red giants...
- ... and their SpT: **G** **K** **M**
- Overlap with work of exo-planet team!
  contacts already made (thanks Magali!)
- Access to the ground-based exo-planet field data through Corotsky in the very near future?
- Interested in using FLAMES for SpT identification

Simulations

- Population synthesis simulations of anti-center field (TRILEGAL code, Girardi et al., 2005)
- What kind of fractions do we expect?
How does reddening affect these numbers?



Conclusions

- Red giant team
- Interested in as many G, K and M giants as possible
- Target selection: in collaboration with exo-planet team
- Team will respond to the additional program AO