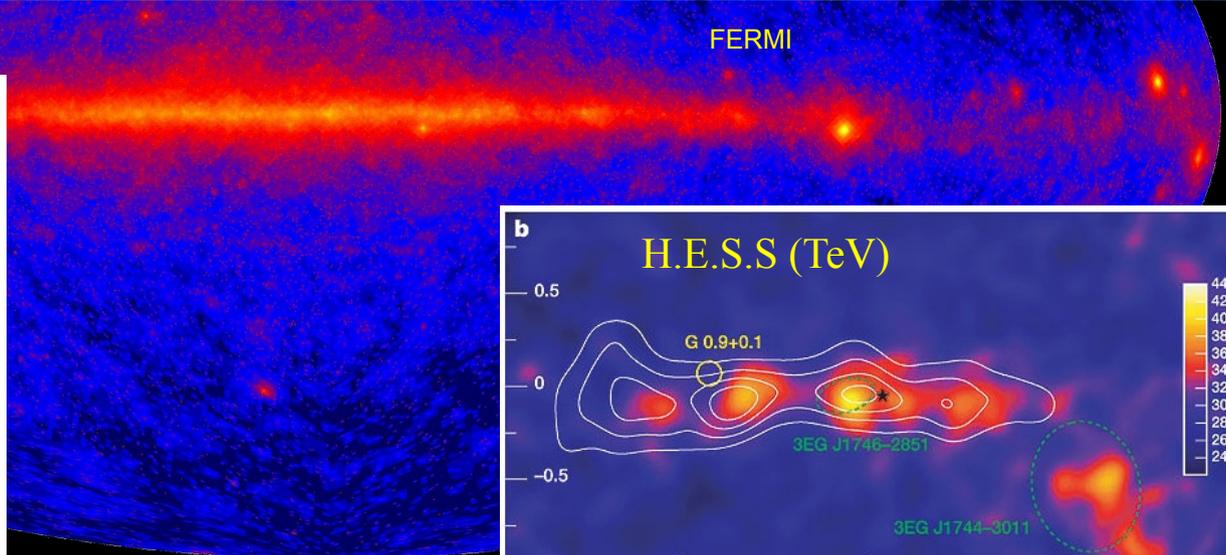
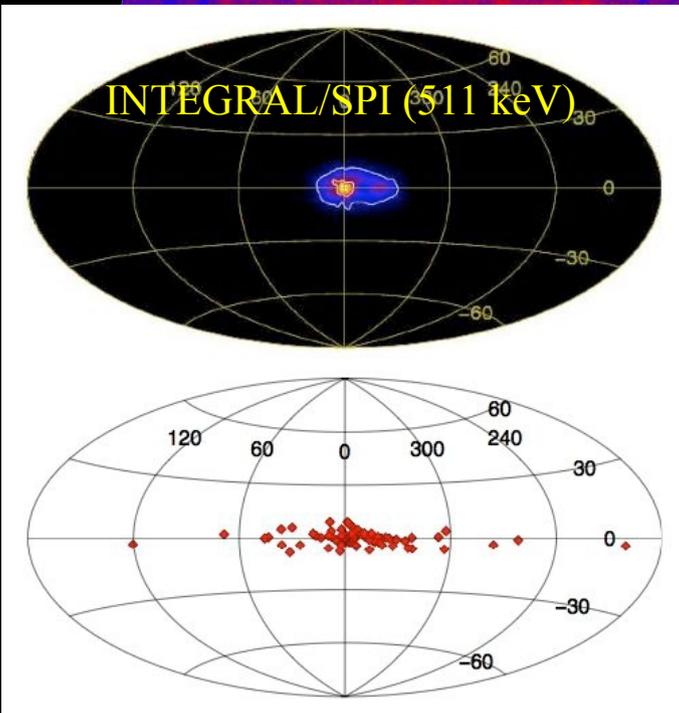
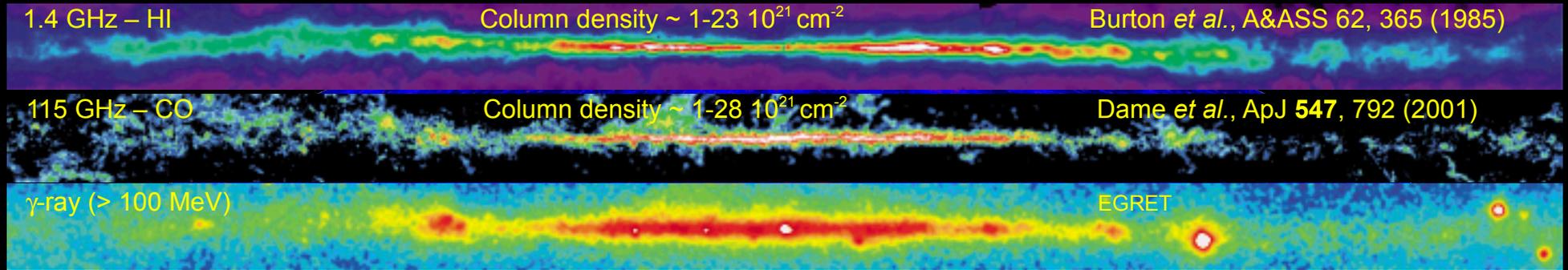


GDR PCHÉ workshops on diffuse emissions

[J. Lavallo, A. Marcowith & D. Maurin]

Main goal: create links/synergies between French scientists working on different aspects of the same topic



- Cosmic Ray sources, gas, acceleration/transport,...
- Multi-wavelength, multi-messenger...
- Theory, pheno., experim., data analysis techniques

A working definition for diffuse emission

(from J. Knödlseeder)

Dictionary:

Diffuse = widely spread; not localized or confined; with no distinct margin

Astronomer:

"all emission that I cannot resolve into individual (point-) sources"

- depends on instrument characteristics (angular resolution, sensitivity)
- is not of much help for an astrophysicist

Astrophysicist:

"all emission processes that are related to interstellar (-planetary, -galactic) matter"

- emission of gas and dust (thermal, non-thermal)
- emission related to magnetic fields (synchrotron)
- emission related to diffuse stellar ejecta (particle diffusion)
- also applicable to extragalactic diffuse (e.g., intergalactic matter in clusters)
- also applicable for cosmic backgrounds (e.g., primordial matter for CMB)

“First” GDR PCHÉ workshop on diffuse emissions

Montpellier, 13th-14th of november, 2008

Specific targets of the first meeting:

- Provide a general and introductory view of the subject
- “Who” works on “what” in the French community
- Invite a few non-French “expert” on dedicated topics

Facts:

- 19 participants (5 post-docs, 4 PhD students)
- 16 laboratories (3 not from France)

Topics covered:

- Review: diffuse keV to TeV emissions and recent advances
- Experiments: Fermi, HESS, Planck
- Turbulence (theoretical aspects) for acceleration/transport
- Molecular gas distribution in the Galaxy
- Phenomenology: transport of charged particles

=> Slides available on the web

URL: <http://indico.in2p3.fr/conferenceDisplay.py?confId=1259>
login: GDRlpta