CNRS/LPMAA

http://www.lpmaa.jussieu.fr/ext/

Contact person : M.L. Dubernet

LPMAA is a leading laboratory for in situ studies of the Earth Atmosphere, they launch their

own balloons in Siberia and Brazil, perform analysis of their spectra and collaborate closely with researchers modelling the earth atmospheres. Some other teams are involved in theoretical spectroscopic activities and have close collaborations with GSMA (CNRS) and IAO (Russian Federation). They are also involved in experiments related to the spectroscopy of CH4 for application to Titan, O3, to the ro-vibrational relaxation of molecules for planetary sciences, to the photodissociation of H2. With the coordinator of the present proposal, LPMAA is now involved in theoretical calculations of ro-vibrational de-excitation rate coefficients for application to interstellar, circumstellar and cometary atmospheres, of line broadening coefficients for application to planetary and earth atmospheres, development of database with BASECOL, Virtual Observatory activities of software design and standards definition. The LPMAA is a laboratory associated to the CNRS and University of Paris 6.

Key Persons :

M.L. Dubernet Astronomer. She belongs both to LPMAA where she is the UMR director and to Paris Observatory (VOPARIS Data Centre, LERMA).

Expertise : Scientific leader of Virtual Observatory activities at Paris Observatory (scientific PI of VOPARIS Data Centre), activities ranging from VO output of databases, numerical simulations and software development. She has built the VOPARIS Data Centre at Paris Observatory together with Pierre Le Sidaner and has initiated the participation of the Observatory of Paris in

EGEE. From training, she is a theoretical molecular physicist specialist of molecular collisional processes. She designed the BASECOL database on inelastic collisions of molecules and is still the scientific PI of the BASECOL database and related web/http services. She is a Member of the Scientific Councils of the French Virtual Observatory and of the National Program “Physics and Chemistry of the Interstellar Medium”, as well is the Deputy Coordinator of the FP6-RTN network “Molecular Universe” (01/10/2004 to 30/09/2008). She has initiated the project of standardisation of the exchanges of atomic and molecular data, works in collaboration with IVOA to produce a Line Data Model, and in collaboration with NIST (Y. Ralchenko), ORNL (US), IAEA (Vienna) to create a XML schema describing atomic and molecular interactions. Her work is at the interface of physics, chemistry, astrophysics, atmospheric physics, software specification and software design .

Role in VAMDC project : M.L. Dubernet is the coordinator of the project (from LPMAA). In addition she will participate to all workpackages in particular to the definition of specifications in JRAs, will advice on deployment of molecular spectroscopy databases (SA1), (MGT) coordinator.

J.Bureau Research Engineer.

Expertise : GRID Technology, Standards, Database, Scientific computing.

Role in VAMDC : SA1, SA2, JRA1.

S.Tacine Account Officer

Expertise : Financial Management

Role in VAMDC : WP1 (MGT)

To be recruited

Expertise : Software, Databases, Project Manager.

Role in VAMDC : Project Manager.

To be recruited

Expertise : Software Developer

Role in VAMDC : SA1, SA2, JRA1, JRA2.

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