

# Seminar



Institutul de Fizică  
Atomică

Institutul Național de Fizica  
Laserilor, Plasmei și Radiației



## Turning basic research results into applications

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The Groupe de physique des plasmas at Université de Montréal (Montréal, Québec) is particularly knowledgeable in RF and microwave produced discharges, in both their technological and fundamental aspects. These SW plasma sources as well as the plasma they produced have been thoroughly modelled. They have further been used in a variety of applications including an ion source for a spacecraft to Phobos (Mars satellite), thin-film diamond deposition, polymer etching and deposition, analytical chemistry. We are going to present two more, rather recent, applications of our research group: a green-house gas abatement system for microelectronic fabs (developed in our laboratories, and then engineered and commercialized by L'Air Liquide as the UPAS system) and a plasma sterilizer for medical devices, in contrast to the UPAS, still under development and looking for an industrial partner. The latter work was the occasion to enter the world of molecular biology and microbiology, a real plus in the training of Ph. D. students and research assistants. This presentation is intended for a general audience of physicists and physico-chemists. Research students are particularly welcomed.

**Miercuri 30.03.2011, ora 11<sup>00</sup>, Sala de Consiliu, Bloc Turn, etaj 9**