

Anne PACROS

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EDUCATION

- 2000-2002 **Master of Science (MS) in Aeronautics and Astronautics, Massachusetts Institute of Technology**, along with the completion of the ECP Engineering Degree (double-degree agreement). MS thesis: *Instruments Design and Testing for a Hall Thruster Plume Experiment on the Space Shuttle*.
- 1998-2000 Studies in engineering at the **Ecole Centrale Paris (ECP)**, France.
- 1996-1998 Preparatory classes at the Lycée du Parc, Lyon, France.
- 1996 Scientific "baccalauréat", with first-class honors and congratulations of the jury, Avignon, France.

PROFESSIONAL EXPERIENCE

- September 2003 **Microgravity Transport Processes Conference** (Davos, Switzerland): co-authored and presented paper MTP-03-34, *Microgravity Activities for the VINCI Engine Re-ignition Capability*.
- October 2002 **World Space Congress 2002** (Houston, Texas): selected by the U.N. Committee on the Peaceful Uses of Outer Space as a French Delegate to the Space Generation Summit; co-authored and presented paper IAC-02-S.1.03, *Overview of the Development Progress of the Ariane 5 Upper Stage VINCI Engine*.
- Since May 2002 **Snecma Moteurs, Vernon, France**: Systems Engineer in the department of Functional Studies for the future Ariane 5 upper stage engine (VINCI). Responsible for technical management of activities in the fields of fluid physics in microgravity, thermal design, chilldown studies, in-flight instrumentation plan, and safety analyses.
- 2000-2002 **MIT Space Propulsion Laboratory, USA**: Research Assistant, responsible for the design of a Space Shuttle experimental payload on Hall thruster plume/spacecraft interactions (MS thesis). Developed dedicated instruments and conducted ground tests on a 200 W Hall thruster.

RELEVANT PROJECTS

- February 2004 Selected by the Mars Society for a two-week **Mars-analogue mission at the Mars Desert Research Station (MDRS)** in Utah, USA. Held the position of Executive Officer (second in command) in a six-person crew.
- April 2001 **AIAA First Prize** for the presentation of COSMIC at the Northeast Regional Student Paper Conference, Buffalo, NY (AIAA 2002-0013, *Review of a Combustion Experiment Performed during a Parabolic Flight*).
- Spring 2001 Team project for the **NASA Means Business Competition 2001**: developed a Customer Engagement Architecture for NASA, selected as one of the six finalists. Presented this work at the Third Annual NASA Customer Engagement Conference, Houston, TX; selected to present it at NASA Headquarters (Sept. 2001).
- Fall 2000 **Team project on Extra-Vehicular Activities (EVA)**: developed an underwater simulation of Martian gravity in a pool; analyzed the effects of scheduling on astronauts' performance.
- August 2000 Designed the COSMIC experiment (COmbustion around a Sphere in MICrogravity) which was selected by the European Space Agency (ESA) for the **3rd Student Parabolic Flight Campaign**. Conducted this experiment in a parabolic flight onboard the Airbus A300 Zero-G in October 2000.

LINGUISTIC COMPETENCES AND COMPUTER SKILLS

- * **French, English:** **Fluent.**
- * German, Russian: Intermediate.
- * **Operating systems and software:** Windows, Microsoft Office, Unix. Good knowledge of Internet and networks.
- * Simulations with MATLAB and FLUENT, basic knowledge of CATIA.

MISCELLANEOUS

Flying license at 17 (youngest French private pilot), president of the ECP Aviation Club (1999), member of the MIT Rocket Team (2001). Member of AIAA and of the French Chapter of the Mars Society (Association Planète Mars). Hobbies: music (piano and guitar), cinema, travel, sports (basketball, judo, scuba diving).