

Damien PRÊLE Micro-electronic Research / Instrumentalist  
46 (05/01/1977) Married, 3 children  
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## Current Employment : APC CNRS/Paris Cité University

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**Microelectronic Instrumentalist** for cryogenic applications *since 2007*  
APC - *AstroParticule & Cosmologie* laboratory

**Teacher at USTH (University of Science and Technology of Hanoi)** *since 2012*  
*Teacher/coordinator of the elec. module of the Master of Space and Application  
Advanced Electronic Systems (lectures, tutorials and labs)*

**Teacher at EIDD (Ecole d'Ingénieurs Denis-Diderot)** *since 2011*  
*Electronic noise (lectures, tutorials and labs)*

## Last Employment, UPMC/Paris 6 University

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**Temporary teacher and researcher (ATER) at Polytech Paris-UPMC** *2006 - 2007*  
*Electronic and CAD with Cadence*

**Teaching assistant at IFITEP (Institut de Formation d'Ingénieurs en Tech. Elec. de Paris)** *2003 - 2006*  
*Electronic, C Programming*

## Education

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**Ph.D. in cryogenic instrumentation, UPMC/Paris 6 University** *2006*  
*Instrumentation cryogénique bas bruit et large bande en technologie SiGe*

## Skills

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Micro-electronic, electronic noise, multiplexing, analog and mixed electronic systems  
Feedback, stability, filtering and regulation, control system : PLL, FLL, BBFB  
Superconductivity and cryogenic sensors : SQUID, TES, KID, SNSPD  
Device operated at cryogenic temperatures (HBT, SQUID, TES, KID...)  
Thermal compensations (Band gap) and low-drift electronic design  
Linear and switching power supplies, DC/DC converters  
Electromagnetic interference/compatibility (EMI/EMC)  
ASIC Radiation Hardening By Design (RHBD)  
Projet management, Systems engineering & Quality assurance  
Space technology, Development, Assembly, Integration & Verification

## Projects

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**CMB-S4 responsible for IN2P3 instrumental contribution** *since 2022*  
*Institut National de Physique Nucléaire et de Physique des Particules*

**Co-Investigator member of the XIFU instrument - ATHENA ESA space mission**  
**Projet leader for the X-IFU Warm Front End Electronic** *since 2016*

Publication list : <https://apc.u-paris.fr/~prele/Site/Publications>