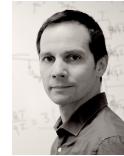


# Damien PRÊLE

Instrumentalist / Microelectronic engineer / Project manager  
(+33) (0)7 82 87 71 13 prele@apc.in2p3.fr  
42 (05/01/1977) Married, 3 children



## Current Employment : APC CNRS/Paris Diderot University

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**Microelectronic engineer / 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*

**Master of Science in electronic, UPMC/Paris 6 University** *2003*  
*SSI - Signaux Systèmes Images*

**Bachelor of Science in electronic, UPMC/Paris 6 University** *2001*  
*EEA - Electronique Electrotechnique Automatique*

## 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  
Linear and switching power supplies, DC/DC converters  
Geiger mode avalanche photodiodes (SPAD)

## Projects

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**Project Manager of the Warm Front End Electronic for the XIFU inst. (X ray range)**  
**Co-Investigator member of the XIFU instrument - ATHENA ESA space mission**  
**Instrumentalist for the QUBIC ground based telescope in the mm range**

## Hobbies

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**Bike, Skiing, Trekking, Climbing, Woodcraft, Manual work**

- S. Chen, D. Prêle, et al., *Proc SPIE, Space Telescopes Instru.* 10699 2018  
*Dev. of WFE Subsystem for the X-IFU Instru. of the ATHENA Space Observatory*
- D. Prêle, S. Chen, et al., *J. Astro. Telescopes* 2(4), doi:10.1117/1.JATIS.2.4.046002, 2016  
*Gain drift compensation with no feedback-loop dev. for the X-Ray Integral Field Unit*
- D. Prêle et al., *Journal of Low Temperature Physics*, Vol. 182, n3-4, 2016  
*A 128 Multiplexing Factor Time-Domain SQUID Multiplexer*
- C. Perbost, D. Prêle et al., *Journal of Low Temperature Physics*, 2016  
*A 256-TES array for the detection of CMB B-mode polarisation*
- D. Prêle et al., *IEEE Trans. on Applied Superconductivity*, Vol. 26, Issue 2, 2015  
*Operating Point and Flux Jumps of a SQUID in Flux Locked Loop*
- D. Prêle, *JINST*, doi:10.1088/1748-0221/10/08/C08015 2015  
*Front-end multiplexing applied to SQUID: Athena X-IFU and QUBIC experiments*
- D. Pellion, K. Jradi, N. Brochard, D. Prêle, D. Ginhac, *NIMA*, Vol. 787, pp. 380 - 385 2015  
*Single-Photon Avalanche Diodes (SPAD) in CMOS 0.35  $\mu$ m technology*
- D. Prêle et al., *Journal of Low Temperature Physics*, Vol. 176, 3-4, pp. 433 - 438 2014  
*Capacitively-coupled SQUID Bias for Time Division Multiplexing*
- A. Tartari, B. Bélier, M. Calvo, D. Cammilleri, A. Monfardini, M. Piat, D. Prêle, G.F. Smoot, *J. of Low Temp. Physics*, Vol. 176, 3-4, pp. 524 - 529 2014  
*A mm-wave pol. analyser using LEKIDs: Strategy and preliminary num. results*
- D. Prêle et al., *J. of Low Temperature Physics*, Vol. 167, n5-6, pp 726-731 2012  
*Cryogenic Integrated Offset Compensation for Time Domain SQUID Multiplexing*
- D. Prêle et al., *IEEE Trans. Applied Supercond.*, Vol. 21, 6, pp. 3652 - 3654 2011  
*Non-Dissipative Addressing for Time Division SQUID Multiplexing*
- F. Pajot, D. Prêle et al., *IEEE Trans. Ap. Supercond.*, Vol. 21, 3, pp. 192 - 195 2010  
*NbSi TES Array and Readout: Development and Characterization*
- D. Prêle et al., *American Institute of Physics*, Vol. 1185, Cabrera, Miller, Young (ed) 2009  
*SiGe Integrated Circuit/SQUID Hybrid Cryogenic Multiplexing for Superconducting Bolometer Array*
- D. Prêle et al., *European Astro. Society*, *EAS Publications Series*, P. Kern (ed), Vol. 37 2009

*Cryogenic SiGe ASIC for SQUID multiplexing*

**D. Prêle et al., IEEE Trans. on Applied Supercond.**, Vol. 19 - Nb. 3 - pp. 501-504 2009  
*Development of Superconducting NbSi TES Array and Associated Readout with SQUIDs and Integrated Circuit Operating at 2 K*

**D. Prêle et al., Nuclear Instru. & Methods**, A, 578, pp. 439-441 2007  
*Very Low Noise Multiplexing with SQUID and SiGe HBTs For Readout of Large Superconducting Bolometer Arrays*