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Personal information:

Nationality: French  
Date of birth: July 13, 1982  
Place of birth: Neuilly-sur-Seine, France  
Marital status: married, 2 children.  
Languages: French (Native), English (C1), German (B1-2).

## CURRICULUM VITÆ

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### Education

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**2006-2009:** PhD under the direction of L. Schneps: *Mixed Tate Motive and MacPherson-Processi blow-ups, an application to MZV's double shuffle*.  
Graduate student in algebraic geometry (*University Paris Diderot Paris 7*).

**2002-2006:** Student of the École Normale Supérieure (ENS) de Cachan:

- Masters degree with a score of 16,5 out of 20 (highest honors). (2005, *University Paris Diderot Paris 7*).
- Masters dissertation completed with a score of 17 out of 20 under the direction of L. Schneps and P. Lochak: *Differential Forms on Moduli Spaces of Curves of Genus Zero*.
- Received the "agrégation" in 2005 (a highly competitive national exam to enter the teaching profession at secondary and higher education levels as a civil servant).
- Bachelor's Degree (Maîtrise) with honors in theoretical mathematics (2004, *University Paris Diderot Paris 7*).

### Personal projects and other positions:

- Sep 07 - Feb 08: Early Stage researcher position (Marie Curie Action) at Durham University (U.K.).
- Feb 06 - Jun 06: research stay in Northeastern University (Boston, U.S.A.) supervised by M. Levine : *Motivic multiple zeta values*.

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### Publications

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#### Scientific publications

- *Motivic double shuffle*, Int. J. Number Theory **6** (2010), no. 2, 339–370.  
<http://dx.doi.org/10.1142/S1793042110002995>  
<http://arxiv.org/abs/0808.0248>
- *Explicit associator relations for multiple zeta values*, Math. J. Okayama Uni **55** (2013), 1–52.  
[http://www.math.okayama-u.ac.jp/mjou/mjou55/\\_01\\_souderes.pdf](http://www.math.okayama-u.ac.jp/mjou/mjou55/_01_souderes.pdf)
- *The cycle complex over  $\mathbb{P}^1$  minus 3 points : toward multiple zeta values cycles*. J. Pure and Applied Algebra, **220** n°7 (2016), 2590–2647, <http://dx.doi.org/10.1016/j.jpaa.2015.12.003>.
- *Multiple zeta value cycles in low weight*; “Feynman Amplitudes, Periods and Motives”, AMS Contemporary Mathematics **648**, 203–247,  
<http://dx.doi.org/10.1090/conm/648/13004>.

- *A relative basis for mixed Tate motives over the projective line minus three points*, 2014, submitted, <http://arxiv.org/abs/1312.1849>.
- *Équations fonctionnelles des polylogarithmes multiples et espaces de modules  $\mathcal{M}_{0,n}$* , submitted, 2015, <http://arxiv.org/abs/1509.02869>.
- *A family of dilogarithmic functional equations for algebraic cycles*, in preparation, 2015.

#### Other publications

- Author for the H&K editions (Paris): correction of a highly competitive mathematics contest (École Centrale).

### Professional experience

#### University positions

- 2013-2016:** Postdoctoral position at Osnabrück University:  
*Mathematik für Anwender*, Licence-semester 1 (WS2015).  
*Lineare Algebra und analytische Geometrie II*, Licence-semester 1 (SS2015).  
*Lineare Algebra und analytische Geometrie I*, Licence-semester 1 (WS2014).  
*Differentialgeometrie*, Licence-semester 4 (SS2014).  
*Lineare Algebra und analytische Geometrie I*, Licence-semester 1 (WS2013).
- 2013:** Postdoctoral position (Jan.-Dec) at Max Planck Institut für Mathematik, Bonn.
- 2010-2012:** Postdoctoral position at the University Duisburg-Essen:  
*Riemann Surfaces*, graduated student course M2.
- 2009-2010:** ATER (lecturer) at the University Paris Diderot, Paris VII:  
*MT1*: mathematics 1st year undergraduate students (09-10)
- 2006-2009:** Ph.D. position at the University Paris Diderot, Paris VII:  
*MC2*: mathematics for chemistry 1st year undergraduate students (07-09),  
*MK2*: personal mathematics studies for 1st year undergraduate students (06-08).

#### Administrative Experiences

- 2014-2015:** Organizer of Topology seminar, *Bar/cobar construction in operads and the recognition principle question in motivic homotopy theory*, (Osnabrück Universität).
- 2009-2010:** Organizer of a weekly workshop, *Géométrie des classifiants des groupes de tresses (généralisées) et leurs compactifications*, (Institut de Mathématiques de Jussieu).
- 2007-2008:** Coorganizer of the ASG seminar at Durham University.  
 Coorganizer of the Feynman graphs, periods and polylogarithms seminar at Durham university.
- 2006-2008:** Project manager of a L<sup>A</sup>T<sub>E</sub>X training intended for graduate students.

#### Research stay-Research fellowship-Research groups

- 2014:** November - *Research in team* - ICMAT - madrid : “Motivic multiple elliptic polylogarithm” with Dr. Pataschinck and Dr. Argawala.
- 2013:** Guest at the Max-Planck Insitute for Mathematics, Bonn
- 2007-2008:** Marie-Curie young researcher, Durham (Sept.-Jan.)

Member of the *DFG Graduiertenkolleg* “Kombinatorische Strukturen in der Geometrie” (Osnabrück Universität).

Former member (2010-2013) of *SBF/TR 45* “Periods, moduli spaces and arithmetic of algebraic varieties” (Essen Universität; MPIM Bonn)

#### Other teaching experiences

- 2003-2007:** Mathematics teacher at Louis-le-Grand College (2006-2007) and Saint-Louis College (2003-2006).
- 2002-2008:** Private mathematics lessons.

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## Talks

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- 2014 :** - *Around functional equations for polylogarithms*: Madrid, ICMAT “Numbers and Physic” conference (september).  
- *A motivic Grothendieck-Teichmuller group over  $\mathbb{Z}$* : “(A)round form cycle and motives” conference, Mainz (september).  
- *Bloch cycle complex over a base*: Bristol (May).  
- *Cooperad (co)Lie et cycle algébriques sur  $\mathbb{P}^1 \setminus \{0, 1, \infty\}$* : Lille, seminaire de topologie (April).  
- *Multiple polylogarithm cycles and mixed Tate motives*, Freiburg, (March)  
- *Combinatorics of moduli spaces of curves*: Osnabrück, “Kombinatorische strukturen in der Geometrie” seminar.  
- *From quantum groups to TQFT*: Osnabrück, Topologie seminar.
- 2013 :** - *Goncharov’s motivic iterated integrals, III*: Essen, Motives seminar.  
- *From multiple polylogarithm to algebraic cycles*: MPIM, Oberseminar.  
- *Toward multiple zeta values cycles*: MPIM, Number theory seminar.  
- *Cycle and motives over  $\mathbb{P}^1 \setminus \{3 \text{ pts}\}$* : Lyon, Osnabrück.
- 2012 :** - *Cycles and Mixed Tate motives over  $\mathbb{P}^1$  minus 3 points* : "Periods and Motives" conference, Madrid.  
- *Complexe de cycles sur  $\mathbb{P}^1$  moins 3 points et polylogarithmes multiples* : Grenoble, Strasbourg, Toulouse.  
- *Cycle complex over  $\mathbb{P}^1$  minus 3 points* : Göttingen, Mainz, Duisburg-Essen .  
- *Regular singularities for holonomic  $\mathcal{D}$ -modules*, Studies Seminar on D-Modules, Duisburg-Essen.
- 2011 :** - *Around Ayoub specialisation theorem*, AGAT Seminar (Duisburg-Essen Universität).
- 2010 :** - *MZV, espaces de modules de courbe et éclatements*, Séminaire GAM (Paris 13).  
- *Géométrie des relations de double mélange*, Séminaire Chevalley (IMJ).
- 2009 :** - *Double mélange motivique, Strasbourg*, Séminaire Quantique, (IRMA, Strasbourg 1).  
- *Éclatements à la MacPherson-Procesi et produits de mélanges des valeurs zêta multiples*, Séminaire d’algèbre (Institut Camille Jordan, Lyon 1).
- 2008 :** - *Motifs de Tates mixtes et double shuffle* (Séminaire Polylogarithmes, IMJ).  
- *Éclatements et valeurs zêta multiples* (Séminaire des thésards, IMJ).
- 2007 :** - *Geometry of moduli spaces of curves* (ASG, Durham University).