



Gabrielle De Micheli

General Information

- Email: gmicheli@seas.upenn.edu
- Nationality: American, French, Italian, Swiss
- Place and Date of Birth: Palo Alto, CA, February 11th, 1993

Scientific Interests

Cryptography, Security, Computational Number Theory, Lattices, Algebra (Group Theory, Representation Theory), Geometry (Riemannian Geometry), General Relativity.

Education

Current Work

Sep 2016 - current **PhD in Computer Science**, *University of Pennsylvania*, Philadelphia, USA.
My work lies at the intersection of Mathematics and Cryptography, with particular research interests in the Number Field Sieve (NFS) algorithm, Zero-knowledge proofs and ideal lattices. I am interested in both attacks and defenses with a particular interest in using mathematical techniques for obtaining a better understanding of the security properties of commonly used cryptographic primitives in real-world applications.

Past Degrees

- March 2016 **Master of Mathematics**, *EPFL, Ecole Polytechnique Fédérale de Lausanne*, Lausanne, Switzerland.
- July 2014 **Bachelor of Mathematics**, *EPFL, Ecole Polytechnique Fédérale de Lausanne*, Lausanne, Switzerland.
- July 2010 **Baccalauréat Général, Filière scientifique**, *Ecole Française Valmont*, Lausanne, Switzerland.

International experience

- Sep 28 - Oct 1st 2015 **School on Geometric Aspects of General Relativity**, *University of Montpellier*, Montpellier, France.
- Sep 2015-Jan 2016 **Semester abroad (Master thesis)**, *Imperial College*, London, UK.
- Sep 2013-June 2014 **Erasmus year**, *Heriot-Watt University*, Edinburgh, Scotland, UK.

Master's Thesis

Title *The Riemannian Penrose Inequality*

Teaching Experience

Feb -June 2013 **Teaching assistant for General Physics II**, EPFL, Lausanne.
Sep 2014 - June 2015 **Translator**, *Exercises and solutions for Analysis I and II*, EPFL, Lausanne.

Computer skills

Basic Matlab, HTML
Intermediate Python, Sage, L^AT_EX

Languages

French **Mothertongue**
English **Fluent**
Italian **Fluent**
German **Basic**

Additional Interests

Sailing	Club de voile Morges	<i>Several international competitions</i>
	Club de voile EPFL	<i>Vice-president and treasurer, 2012-2013</i>
	Sailing instructor	<i>Glénans, France, summers 2011-2014</i>
Skiing	Ski-Club Villars	<i>2008-2010</i>
Basketball	Heriot-Watt Ladies team	<i>Sep 2013 - June 2014</i>
Piano	Ecole Sociale de Musique, Lausanne	<i>2004-2015</i>
Humanitarian	Project EMahP	<i>Teaching math in South Africa, July 2013</i>
Other	Alpinism, Climbing, Traveling	