

## Caroline Muller

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CONTACT INFORMATION	Laboratoire de Meteorologie Dynamique (LMD) Ecole Normale Supérieure (ENS) 24 rue Lhomond 75005 Paris France	06 50 13 56 40 muller@lmd.ens.fr
RESEARCH TOPICS	Hydrological cycle (mean and extreme precipitation), spatial organization of tropical clouds, cyclogenesis, ocean circulation, internal waves.	
RESEARCH EXPERIENCE	<p>2016 - present <b>Laboratoire de Météorologie Dynamique (LMD), École Normale Supérieure (ENS)</b> CNRS researcher <i>Chargée de Recherche</i> &amp; ENS lecturer <i>Maître de Conférence attachée à l'ENS</i></p> <p>2012 - 2016 <b>Laboratoire d'Hydrodynamique de l'X (LadHyX), École Polytechnique</b> CNRS researcher <i>Chargée de Recherche</i></p> <p>2010 - 2012 <b>Princeton University/GFDL, Program in Atmospheric and Oceanic Sciences</b> Associate Research Scholar, with Isaac Held</p> <p>2008 - 2010 <b>Massachusetts Institute of Technology (MIT), Dept. of Earth, Atmospheric, and Planetary Sciences</b> Postdoctoral Associate, with Paul O'Gorman</p> <p>2003 - 2008 <b>New York University (NYU), Courant Institute of Mathematical Sciences</b> Ph.D. research, with Oliver Bühler</p> <p>Summers of 2004, 2005 and 2006 <b>NASA Goddard Institute for Space Studies</b> Summer internships, with Vittorio Canuto and Armando Howard</p> <p>2001 - 2002 <b>Georgia Institute of Technology, Aerospace Engineering Dept</b> Masters research, with Panagiotis Tsiotras</p>	
EDUCATION	<p><b>Courant Institute of Mathematical Sciences, New York University (NYU)</b> Ph.D. in Applied Mathematics, May 2008 M.S. in Mathematics, May 2005</p> <ul style="list-style-type: none"><li>• Dissertation Topic: Wave-induced mixing in the abyssal ocean</li><li>• Advisor: Oliver Bühler</li></ul> <p><b>Georgia Institute of Technology</b> M.S. in Aerospace Engineering, March 2003 - selective dual degree program with Supaero</p> <ul style="list-style-type: none"><li>• Master's thesis topic: A wavelet method for solving optimal control problems</li><li>• Advisor: Panagiotis Tsiotras</li></ul> <p><b>Supaéro, École Nationale Supérieure de l'Aéronautique et de l'Espace, France</b> Engineering degree, March 2003</p> <ul style="list-style-type: none"><li>• Ranked first on the competitive entrance exam for Supaero Mathematics major</li></ul>	

HONORS AND AWARDS	2016-present	Selective joint appointment as ENS lecturer Geosciences Department, ENS Paris
	2016	Invited Visiting Assistant Professor, Mathematics Department New York University Shanghai (NYU-SH), China
	2009	Geophysical Research Letter publication selected to be an editor's highlight
	2007	Sandra Bleistein Prize for notable achievement in applied mathematics Courant Institute of Mathematical Sciences
	2007	Best Poster Presentation Award AMS 16 <sup>th</sup> Conference on Atmospheric and Oceanic Fluid Dynamics
	2007	Nominated for Outstanding Teaching Award New York University College of Arts and Sciences
	2003 - 2008	Henry MacCracken Fellowship New York University Graduate School of Arts and Sciences
	1999	Ranked 1 <sup>st</sup> on the competitive entrance exam Mathematics major Supaero, Ecole Nationale Supérieure de l'Aéronautique et de l'Espace
	ADMINISTRATION	2016 - present
2016 - present		Member of the Laboratory Committee, LMD
2016 - 2017		Organiser of the LMD seminars, Geosciences Department, ENS Paris
2015		Co-organized the "NewWave" conference on internal waves <a href="http://newwave.sciencesconf.org">newwave.sciencesconf.org</a>
2012 - present		<b>Director of the FDSE summer school</b> , yearly summer school for graduate students, co-organized by Ecole Polytechnique, France & Cambridge University, UK <a href="http://fdse.org">fdse.org</a>
2010 - 2012		Organized the "climate dynamics seminar" GFDL/Princeton University
2008 - 2010		Created and ran a "journal club" to discuss papers in climate science EAPS, MIT
TEACHING EXPERIENCE	2017 - present	Lecturer <i>Clouds and Atmospheric Convection</i> , Geosciences Department, ENS Paris, France
	2015 - present	Lecturer <i>Linear Algebra for Geosciences</i> , Geosciences Department, ENS Paris, France
	2015 - present	Lecturer <i>Meteorology</i> , Geosciences Department, ENS Paris, France
	2014 & 2016	Lecturer <i>Clouds and Climate</i> , FDSE graduate summer school, Univer- sity of Cambridge, UK
	2013, 2015 & 2017	Lecturer <i>Numerical methods for fluid dynamics and applications</i> FDSE graduate summer school, Ecole Polytechnique, France
	2016	Lecturer <i>Calculus</i> , New York University in Shanghai, Shanghai, China
	2013 - 2015	Teaching Assistant <i>Fluid Dynamics</i> , ENSTA, France
	2014	Teaching Assistant - <i>Turbulence</i> , Ecole Polytechnique, France
	2013	Lecturer <i>Physical Oceanography</i> , ENSTA, France
	2005 - 2008	Lecturer <i>PreCalculus</i> , <i>Calculus II</i> and <i>Calculus III</i> , New York Univer- sity (NYU), USA
2003 - 2005	Teaching Assistant <i>Business Calculus</i> and <i>Quantitative Reasoning</i> , NYU, USA	
OTHER ACTIVITIES	Guitar, Climbing, Volleyball, WxChallenge with the MIT team (the North American collegiate weather forecasting competition)	