

Dan Soto

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Education

- 2015–2017 **Post-Doctorate**, *Massachusetts Institute of Technology*, Boston, USA.
Post-Doctoral associate: Anti-icing surfaces, and smart fabrics (Supervised by K. Varanasi).
- 2015–2016 **Fellow**, *Translational Fellows Program*, Boston, USA.
Building entrepreneurship skills to accelerate the transfer of MIT technology to market.
- 2011–2014 **PhD**, *Physique et Mécanique des Milieux Hétérogènes Lab*, Paris.
Phd Thesis: Non wetting drops - from impacts to self propulsion (Supervised by D. Quéré).
- 2010–2011 **Master of Science in Mechanical Engineering**, *Université Pierre et Marie Curie*, Paris.
"Fundamental Physics and its Interfaces". Speciality: Macroscopic Physics and Complex Systems.
- 2007–2010 **Bachelor of Engineering in Mechanical Engineering**, *Ecole Polytechnique*, Palaiseau.
Minor in Soft Interfaces and Hydrodynamic and Elasticity.

Professional Experience

- 2014–2016 **Deshpande Grantee**, *MIT*, Boston.
Project leader: transfer MIT lab technology to market.
- 2011–2014 **Teaching Assistant**, *UPMC*, Paris.
Instructor of a recitation section in Physics and Mathematics
- Apr 2010 – **Research intern**, *Department of Earth, Atmospheric and Planetary Sciences*, *MIT*,
Aug 2010 Boston, MA, USA, Advisor: Pr C. Wunsch.
Developed data-analysis software to access key physical parameters in long simulation runs.
- 2008–2009 **Preparatory school examiner**, *Lycée Sainte Geneviève*, Versailles.
Examiner in Spanish
- Oct 2007 – **Leadership training: Officer cadet**, *Marine Infantry Parachute Regiment-NC*,
Apr 2008 *French Army*, Noumea, New Caledonia.
In charge of the theoretical training of a platoon. Leader of a fireteam during a 1 month commando training.

Archival publications

- 2017 **Soto, D. et al**, *Grating droplets with a mesh*, in prep.
- 2017 **Soto, D. et al**, *Interface solidification of impinging metal drops*, in prep.
- 2017 **Maleprade, H. et al**, *Inertial propulsion of macro textured objects*, in prep.
- 2017 **Soto, D. et al**, *iCVD coatings on fabrics*, *Advanced Materials*, in prep.
- 2016 **Soto, D. et al**, *Air-levitated platelets: from take off to motion*, *Journal Fluid Mechanics*, Accepted.
- 2016 **Soto, D. et al**, *Surfing on a herringbone*, *Physical Review Fluids*, 1, 013902.
- 2014 **Soto, D. et al**, *The force of impacting rain*, *Soft Matter*, 1744-6848.

2012 **Quéré, D. et al**, *La caléfaction, Reflets de la physique*, CNRS.

Honors and Awards

- 2015-2016 **Deshpande Center for technological innovation**, *Commercialize breakthrough Grant technology on Waterproof and Smart Fabrics*, 100K \$.
- 2015-2016 **Translational Fellowship program**, *Opportunity to pursue commercialization of a technology originated from MIT lab*, day-a-week founding for a year.

International conference papers and presentations

- 2016 **Contributed talk in APS - Division of Fluid Dynamics**, *Portland, OR, USA*.
Invited talk in Cohen's Lab, *MIT, Cambridge, MA, USA*.
Invited talk in SMRLab, *Harvard, Cambridge, MA, USA*.
Invited talk Schlumberger, *Doll Research Center, Cambridge, MA, USA*.
- 2015 **Poster Presentation in Ideastream**, *Deshpande Center, Cambridge, USA*.
- 2014 **Poster Presentation in Flow 14 conference**, *U. Twente, Enschede, NL*.
Poster Presentation in Superhydrophobicity, bubble stability, and heterogeneous nucleation conference, *Sapienza, Rome, IT*.
- 2013 **Contributed talk in DTU Summer School**, *Kroegroup, Copenhagen, DK*.
Invited talk in Mahadevan's Lab, *Harvard University, Cambridge, MA, USA*.
Contributed talk in APS - Division of Fluid Dynamics, *Pittsburg, PA, USA*.
Invited talk in McKinleys's Lab, *MIT, Cambridge, MA, USA*.
- 2012 **Invited talk in Stephane Dorbolo's Team**, *GRASP, Liege, BE*.
Contributed talk in APS - Division of Fluid Dynamics, *San Diego, CA, USA*.

Languages

French	Native , <i>Dual French-Spanish nationality</i> .	English	Fluent , <i>USA Visa J-1 eligibility</i> .
Spanish	Native .	Italian	Working knowledge .

Skills

Computer	Matlab, Mathematica, ImageJ , <i>Expert</i> .
Image, 3D	PsTM, AiTM, Gimp/Inkscape, CatiaTM .
Imaging	SEM (HR & Environmental), FIB (Focused Ion Beam), EBS D, Infra Red fast imaging , + <i>Microtome, Cross section polisher, Au/Pd sputtering</i> .
Sample ID	Atomic Force Microscope, X-Ray Diffraction, Profilometry, Ellipsometry, FTIR, DSC, TGA .
Fabrication	Cleanroom (Photolithography, RIE) Machineshop (Lathe, Mill, laser cutter, CNC programing).

Significant extra-curricular activities

Swimming **100 Freestyle: 57'43"- 38th**, *French National Championship*.
50 Freestyle: 25'60"- 24th, *French National Championship*.