

# Anis Senoussi

PhD student



 [anis-senoussi.github.io](https://anis-senoussi.github.io)  
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## EDUCATION

<b>2016 – 2020*</b> PARIS, FRANCE	<b>Sorbonne Université</b> PhD in physics	(*expected)
<b>2015 – 2016</b> PARIS, FRANCE	<b>Université Paris Diderot</b> Master's degree in biophysics	
<b>2015</b> LYON, FRANCE	<b>ENS de Lyon</b> <i>Agrégation*</i> of physical sciences	*Competitive exam to teach at the postgraduate level)
<b>2012 – 2016</b> LYON, FRANCE	<b>ENS de Lyon &amp; UCBL</b> Bachelor's & master's degree in physics & chemistry	
<b>2009 – 2012</b> MARSEILLE, FRANCE	<b>Lycée Thiers</b> <i>Classes préparatoires*</i> in physics, mathematics & chemistry	*University-level preparation for the competitive exams to "grandes écoles"
<b>2009</b> AVIGNON, FRANCE	<b>Lycée René Char</b> <i>Baccalauréat*</i>	*High school diploma

## RESEARCH

### RESEACH INTERESTS

Self-organization in molecular systems, active matter & active gels, reaction-diffusion, in vitro & cell-free systems, DNA & RNA nanotechnology, synthetic biology.

### CURRENT POSITION

<b>Since 2016</b> PARIS, FRANCE	<b>Lab. Jean Perrin, Institut de Biologie Paris-Seine, Sorbonne Université</b> [PhD] <i>Design of molecular systems for artificial pattern formation and gene regulation</i> Advisors: André Estévez-Torres & Jean-Christophe Galas
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### RESEARCH EXPERIENCE

<b>Jun. 2017</b> LONDON, UK	<b>Francis Crick Institute, Surrey's Lab</b> [Stay] <i>Purification of protein motors</i>
<b>Dec. 2016</b> TOKYO, JAPAN	<b>LIMMS, University of Tokyo, Fujii's Lab</b> [Stay] <i>High-throughput microfluidic system for the study of a cell-free transcription-translation system</i> , with Anthony Genot
<b>Jan. – Jun. 2016</b> PARIS, FRANCE	<b>Lab. Jean Perrin, Institut de Biologie Paris-Seine, Sorbonne Université</b> [Internship] <i>Cell-free characterization of RNA translational regulators</i> Supervisor: André Estévez-Torres
<b>May. – Jul. 2014</b> AMSTERDAM, THE NETHERLANDS	<b>FOM Institute AMOLF</b> [Internship] <i>Actomyosin networks cross-linked by alpha-actinin</i> Supervisors: Gijsje Koenderink & Nicholas Kurniawan
<b>May. – Jun. 2013</b> PARIS, FRANCE	<b>Physico-Chimie Curie Lab., Institut Curie</b> [Internship] <i>Perturbations of bacterial concentration waves</i> Supervisor: Axel Buguin
<b>Feb. 2009</b> AVIGNON, FRANCE	<b>Plants &amp; cropping Systems in Horticulture, INRA</b> [Internship] <i>Differentiating moth species using infrared spectroscopy</i>

## SCHOOLS

<b>Oct. 2019</b> MUNICH, GERMANY	<b>Ludwig-Maximilians-Universität München</b> Arnold Sommerfeld School on the Physics of Life
<b>Sept. 2018</b> CARGÈSE, FRANCE	<b>Institut d'études scientifiques de Cargèse</b> EMBO Workshop Physics of Integrated Biological Systems

## PUBLICATIONS

- [3] Book chapter: "Learning from embryo development to engineer self-organizing materials"**  
Senoussi A., Vyborna Y., Berthoumieux H., Galas J.-C. & Estevez-Torres A.  
**2020** (in press), *Out-of-equilibrium supramolecular systems and materials*, Giuseppone N. & Walther A., Wiley-VCH Verlag GmbH.
- [2] Tunable corrugated patterns in an active nematic sheet**  
Senoussi A., Kashida S., Voituriez R., Galas J.-C., Maitra A. & Estevez-Torres A.  
**2019**, *Proceedings of the National Academy of Sciences*, 116(45), 22464-22470. [\[Article\]](#) [\[arXiv\]](#)
- [1] Quantitative characterization of translational riboregulators using an in vitro transcription-translation system.**  
Senoussi A., Lee Tin Wah J., Shimizu Y., Robert J., Jaramillo A., Findeiss S., Axmann I. M. & Estevez-Torres A.  
**2018**, *ACS Synthetic Biology*, 7(5), 1269-1278. [\[Article\]](#) [\[bioRxiv\]](#)

## COMMUNICATIONS

<b>Nov. 2019</b>	[Talk] GDR CellTiss	HYERES, FRANCE
<b>Oct. 2019</b>	[Talk] DNA Nanotechnology Workshop	<b>Sorbonne Université</b> , PARIS, FRANCE
<b>Nov. 2018</b>	[Talk] Internal Seminar	<b>Lab. Jean Perrin, IBPS</b> , PARIS, FRANCE
<b>Jun. 2018</b>	[Poster] Doctoral School Scientific Day	<b>Sorbonne Université</b> , PARIS, FRANCE
<b>Nov. 2017</b>	[Poster] Rencontres des Jeunes Physicien·ne·s	<b>Collège de France</b> , PARIS, FRANCE
<b>Sept. 2017</b>	[Talk] Joint meeting with Robin's Lab (Cell Dynamic Lab)	<b>IBPS</b> , PARIS, FRANCE
<b>Mar. 2017</b>	[Poster] Physical Biology Circle Meeting	<b>EMBL</b> , HEIDELBERG, GERMANY
<b>Dec. 2016</b>	[Talk] Lab meeting at Fujii's Lab	<b>LIMMS/University of Tokyo</b> , TOKYO, JAPAN
<b>Nov. 2016</b>	[Poster] Rencontres des Jeunes Physicien·ne·s	<b>Collège de France</b> , PARIS, FRANCE
<b>Sept. 2016</b>	[Poster] 22 <sup>nd</sup> Intl. Conf. on DNA Computing and Molecular Programming	<b>LMU</b> , MUNICH, GERMANY

## TEACHING

<b>2016 – 2019</b> PARIS, FRANCE	<b>Sorbonne Université</b> Teaching assistant in classical mechanics and physics of waves (64h/year)
<b>2015 – 2016</b> PARIS, FRANCE	<b>Lycée Saint-Louis</b> Tutorials in physics for undergraduate students attending <i>classes préparatoires</i> * (25h)
<b>2012 – 2014</b> LYON, FRANCE	Tutorials in mathematics, physics, chemistry & biology (20h/year)

## FELLOWSHIPS

<b>2019 - 2020</b>	1-year funding from ERC (André Estévez-Torres, <b>CNRS</b> )
<b>2016 - 2019</b>	Teaching assistant fellowship from <b>Sorbonne Université</b>
<b>2016 - 2019</b>	Full Ph.D. scholarship from <b>ENS de Lyon</b>
<b>2012 - 2016</b>	Full bachelor and master scholarship from <b>ENS de Lyon</b>

## MISCELLANEOUS

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### PROGRAMMING SKILLS

<b>Languages</b>	[Advanced] Python (with notions in machine learning using Scikit-learn & Keras) [Intermediate] Matlab, Mathematica [Novice] HTML, CSS
<b>Edition &amp; design</b>	LaTeX, Microsoft Office, Inkscape
<b>Other</b>	ImageJ, Micro-manager, Arduino

### RECENT FORMATIONS

<b>2019 – 2020</b> PARIS, FRANCE	<b>Université Panthéon-Sorbonne</b> First year of law school (distance learning)
<b>Apr. – May. 2019</b> PARIS, FRANCE	<b>Doctoral education institute of Sorbonne Université</b> Introduction to machine learning (24h) by F. Krzakala (ENS Paris)

### OTHER ACTIVITIES

<b>Oct. 2018</b>	Popularization of sciences: Science Fair 2018	<b>Sorbonne Université, PARIS, FRANCE</b>
<b>2013 – 2014</b>	Secretary of the student association of ENS de Lyon	<b>ENS de Lyon, LYON, FRANCE</b>
<b>Music:</b> Guitar & transverse flute (12 years & 6 years in music school)		