

Jonathan Bieler

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Education

2010 – 2015 **EPFL Ph.D. Molecular Life Sciences**, *Ecole polytechnique fédérale de Lausanne*, Switzerland.

keywords Circadian clock, cell cycle, microscopy, single cell, modeling, Drosophila segmentation, data analysis

advisor Professor Felix Naef

2007 – 2009 **MS, Life Sciences**, *Ecole polytechnique fédérale de Lausanne*, Switzerland.

award Best master in bioinformatics

2005 – 2007 **BS, Life Sciences**, *Ecole polytechnique fédérale de Lausanne*, Switzerland.

Experience

2015 **Research Assistant**, *Ecole polytechnique fédérale de Lausanne*, Switzerland.

Developed a statistical framework to analyse single cell time series base on Hidden Markov Models under the supervision of Prof. Felix Naef.

2010–2015 **Teaching Assistant**, *Ecole polytechnique fédérale de Lausanne*, Switzerland.

Publications

2015 **Robust synchronization of coupled circadian and cell cycle oscillators in single mammalian cells**, *Bieler J, Cannavo R, Gustafson K, Gobet C, Gatfield D, Naef F*, Molecular Systems Biology.

2011 **Whole-embryo modeling of early segmentation in Drosophila identifies robust and fragile expression domains**, *Bieler J, Pozzorini C, Naef F*, Biophysical journal.

website <http://3d-flies.epfl.ch/>

Technical Experience

Proficient With

languages Matlab, Julia, Mathematica

technologies Image segmentation and object tracking, Statistical models, Differential equations, Machine learning, Data analysis and visualisation, fluorescence microscopy

tools L^AT_EX, Git, Inkscape, Gimp, Windows, Ubuntu, OSX

Have Experience With

languages C, R, Python, C#, PHP, HTML, CSS, Lua, Javascript

technologies MySQL, SQLite, Apache, Code Igniter CMS, Gtk

Talks

- 2009 **Modeling 3D Flies: reconstructing the drosophila segmentation network on the embryo geometry**, *RECOMB Satellite on Systems Biology*, Boston, MIT, Broad.
- 2010 **Waves solutions in biological oscillatory media**, *RECOMB Satellite on Systems Biology*, Kronos 10, Timing and Dynamics in Biological Systems, Dresden, Max Planck Institute.
- 2014 **Coupling between cell cycle and circadian clock in single mammalian cells**, *The Eighth Annual q-bio Conference*, Santa Fe, New Mexico Consortium.

Others

- 2016 **Web development.**
Developed a website to present my Grandfather's paintings: <http://www.art20thcentury.com/lucien/>