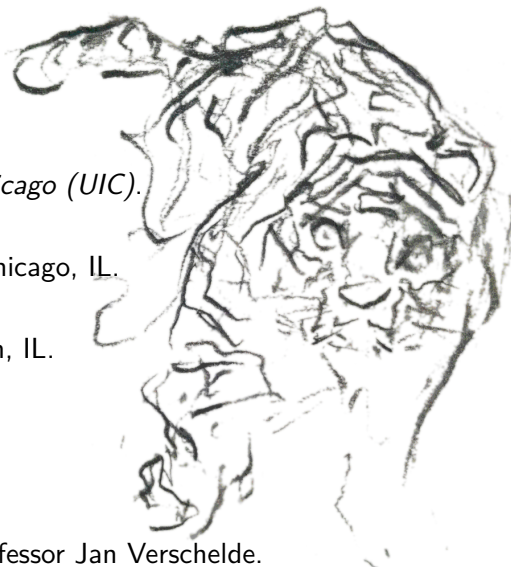


# Jasmine Otto

*Art imitates life reifies art.*

✉ [\[last\]\[first\]@gmail.com](mailto:[last][first]@gmail.com)  
📁 [@jazztap.github.io](https://jazztap.github.io)  
@jatazak



## Education

- 2015–present **PhD, Applied Math**, *University of Illinois at Chicago (UIC)*.  
Expected 2020. MS received 2017.
- 2012–2015 **BS, Mathematical Computer Science**, *UIC*, Chicago, IL.  
Minor in Biology. Graduated *summa cum laude*.
- 2009–2012 **Transferred work**, *College of DuPage*, Glen Ellyn, IL.  
Early admissions.

## Experience

### Selected Research & Teaching

- Summer 2017 **Research assistant**, *PHCpy Tutorials*, under Professor Jan Verschelde.  
JupyterHub deployment of PHCpack.org, integrated with existing accounts and docs.  
Dependent sets and homologies for control of network dynamics.
- Fall 2016 **Independent study**, *Ecological Sociobiology*, with Professor Lou Kauffman.  
Memetic flow on a social graph. Patterns due to diffusivity, advection, nonlinear response.
- Fall 2016–present **Organizer**, *SIG Math Coding*, UIC ACM.

### Selected Works

- March 2017 **Model**, *Apollonius [Web, Hosted]*, Poster presented at SciPy 2017.  
Real-time interactive visualization of the 8 circles (up to multiplicity and complex solutions) tangent to 3 given. Original example and PHCpy solver by Verschelde.
- February 2016 **Model**, *Rug [Video]*.  
An experiment with the Gierer-Meinhardt model of 2D pattern formation.

## Programming

- Scientific** *Python*, Jupyter, Pandas, Matplotlib, Cython, numerics with C++ in a past life.
- Visual** *JavaScript*, D3.js, Processing, shaders.
- Robust** *Scala*, sbt, npm, Git, Tornado, Prolog.
- Mathematical** *Rigorous proof*, SAGE, LaTeX, biological applications of R & NetLogo.

## Distinctions

- April 2017 **Scholarship**, Yeuk-Lam Yau-Leung Memorial, in biomathematics.
- June 2016 **Participant**, *SMS 2016: Dynamics of Biological Systems*, University of Alberta.  
MSRI supported.
- May 2015 **Member**, Phi Beta Kappa.
- April 2015 **Outstanding scholarship**, Biological Sciences at UIC, BIOS 100 and 101.

## Interests

- Research Intuitive science through storytelling. Reachable concept classes under memetic evolution constrained by context. Chained morphogens. Polyhythmic improvisation.
- Gesture study Modern dance, drumset, figure drawing.
- Cultural hobby Indie game dev, Capoeira, Mandarin.