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# The Max Planck Institute of Dynamics and Self Organisation





# The town of Goettingen



# My Work

- I injected *Dictyostelium discoideum* (an amoeba) into microfluidic channels and induced a flow to look at;
  - Their resonance or phase-locking with injected cAMP
  - The effect of the flow's velocity on the waves formed
  - Cell aggregation in the channels

# My Work cont.

- I was in charge of both running experiments and analysing the images and data collected from them (with ImageJ and Matlab)

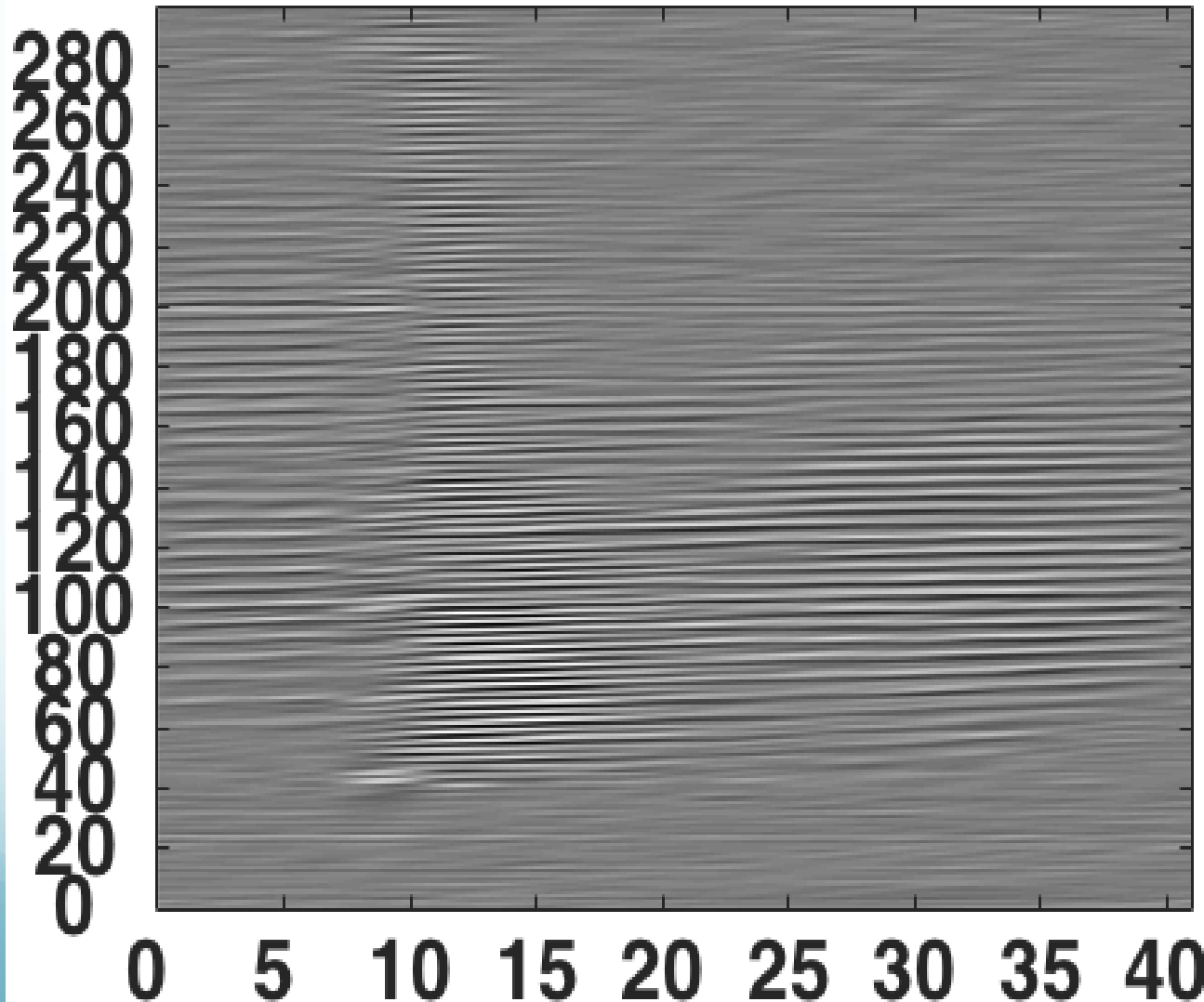


The microfluidic channels



The experimental set-up under the microscope

# My Work cont.

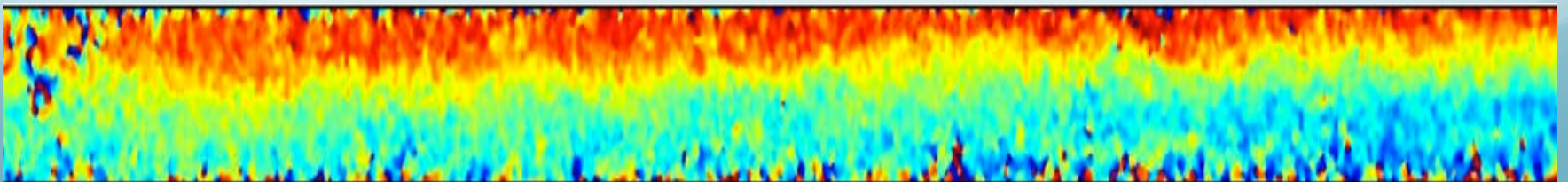
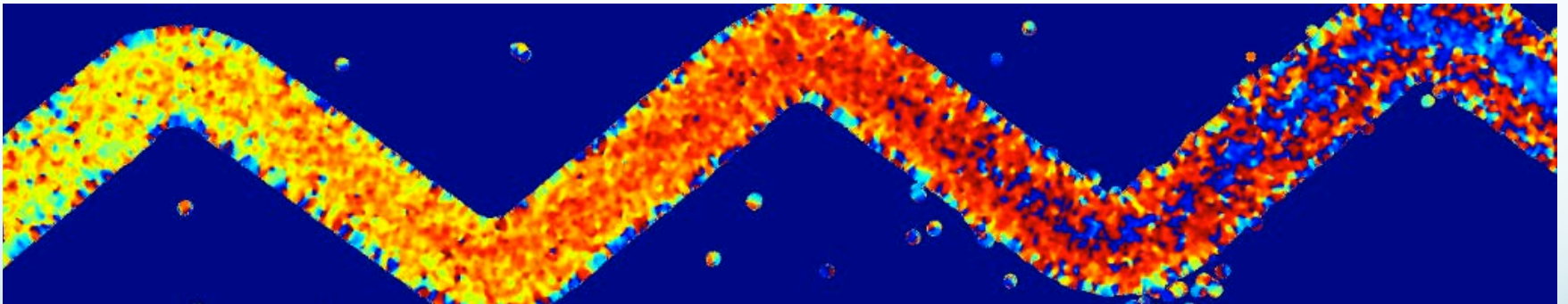


An example of one of the processed images of an experiment, made using ImageJ and Matlab.



# A rewarding part of my work;

- Finally getting a piece of Matlab code working and the right ImageJ processing to be able to make these colourful phase map videos of my experiments!



# Another fun experience at work;

- I got to go into the clean room (where I had to wear one of the sterile suits, like this) and help make some of the silicon wafer molds for the microfluidic channel
- We then tried to measure the channel heights to check our method, expecting it to be around 100um
- We had some problems but it meant that I got to see two different ways to measure the channels which was really interesting





# The PhD Graduation Ceremony;

Hsing Fang (right) from my lab graduated and participated in the tradition of the graduates climbing the Ganseliesel statue in the town square, kissing her on the cheek and giving her a bunch of flowers.



- My work should hopefully be incorporated into an upcoming paper, it is also possible for someone else to continue from where I left off
- I really enjoyed working at the MPIDS, I got a good sense of some of the career options available, however, my personal plan is still to go into either bioengineering or study medicine
- One of my co-workers also put me in touch with someone who is coming to work at Princeton who is involved with Dictyostelium so that if I want I can continue to work in the field here

# Working Abroad;

- Working abroad was a great experience!
- At times the language barrier lead to some small difficulties or confusion but overall it was really interesting and fun to experience another culture
- The location of Goettingen allowed me (and the other interns) to do a lot of travelling on the weekends, we went to other parts of Germany as well as France.



The other MPIDS interns and I on top of Koeln (Colonge) cathedral!