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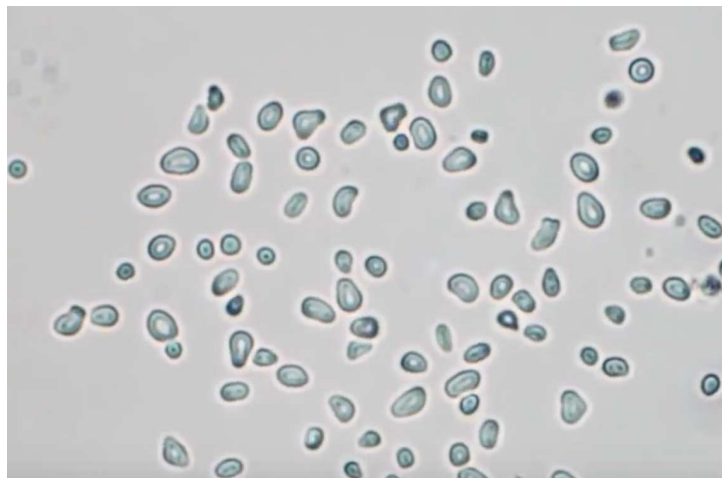
*MATH0488 – Elements of stochastic processes*

## Molecular dynamics: Brownian motion

Maarten Arnst

Marco Lucio Cerquaglia, Adrien Crovato, Joffrey Coheur, Thomas Lambert, and Cédric Laruelle

February 27, 2018



Macroscale behavior: little particles of plant pollens jiggle around in a liquid.

Robert Brown.  
(botanist, experimentalist).

Microscale origin: effect of collisions with smaller liquid molecules in thermal motion.

Albert Einstein.  
(theoretical physicist).

**We will look at foundational discoveries of Brown and Einstein.**

- We will be meeting in room (location TBD) from 10h45 to 12h45 at the following dates:

1	2	3	4	5	6
<b>13/03</b>	20/03	27/03	17/04	24/04	08/05
<b>lecture</b>	Q&A	Q&A	Q&A	Q&A	Q&A

- Your presence is strongly recommended for the lecture:
  - ◆ Tuesday March 13, 10h45–12h45,
- If you should need some help, please attend the Q&A sessions or contact T. Lambert, C. Laruelle, or M. Arnst by email to ask a question by email or schedule an appointment.
- Please work in groups of 2 or 3 people.
- The project report must be sent in PDF format by email to M. Arnst before/on Tuesday May 8.

## ■ Report:

- ◆ The report should collect your solutions to all the exercises that you worked on.
- ◆ One report per group is required. The group is responsible for ensuring that work is fairly distributed among group members and that a high-quality report is written.
- ◆ The report must be neat, well organized, and professionally presented. All graphs must be computer plots. Label all graph axes and include proper units.
- ◆ Please include a list of all the references that you will have consulted.
- ◆ Length of 15 to 30 pages (including figs. and list of refs., single spacing, font size of 12 pt).
- ◆ The report must be sent in PDF format by email to M. Arnst before/on Tuesday May 8. Please attach to your email a file with any code that you will have written.

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