Coordination Meeting: Master Thesis Proposal

MSc Programme Computational Science (CLS)
Student: Boyan Mihaylov
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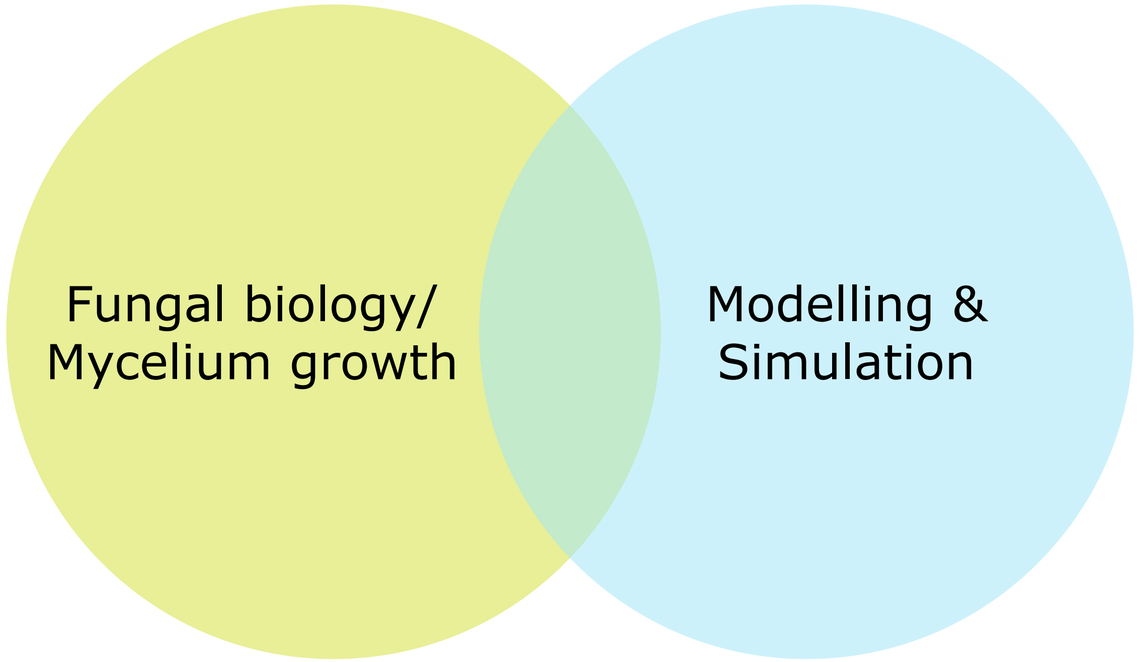
UNIVERSITY OF AMSTERDAM

VU UNIVERSITY AMSTERDAM

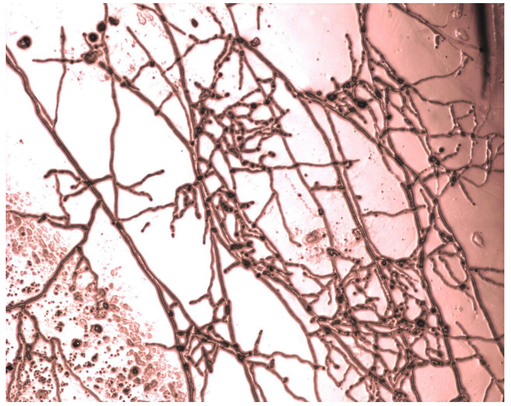
Utrecht University

Time-span/workload of thesis project: 42 EC (7-9 months full-time)

Given this scope, what is a relevant research question that each research group/lab can benefit from?



Focus: Inoculation of substrate by fungal spores/mycelium of *Basidiomycota* species (e.g. *Ganoderma*)



Relevance:

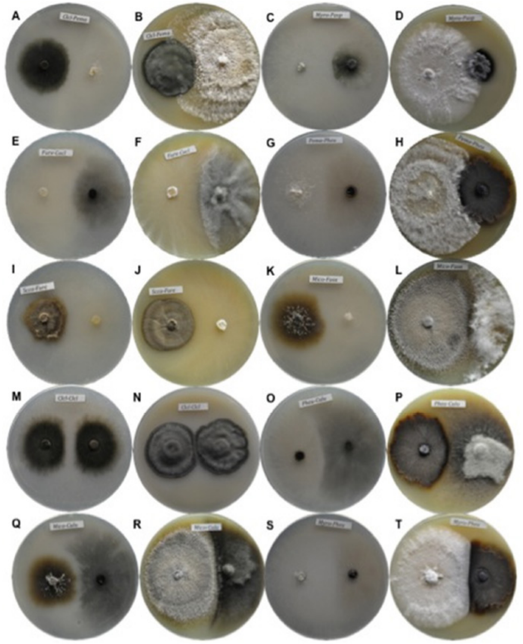
- Biofabrication
- Microecology
- Biocomputing
- ...

To discuss: definition of objectives (what is most interesting, what is rather difficult)

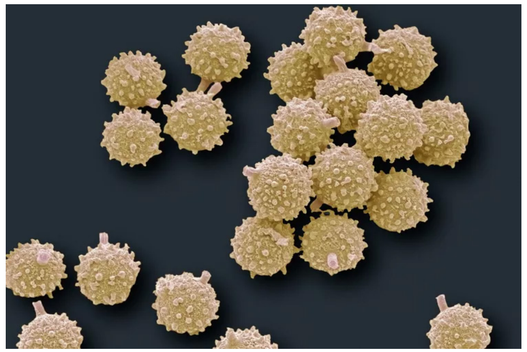
1. **Modelling an observed phenomenon** under specific assumptions / mathematical abstractions;
2. **Consolidating knowledge** about a system, e.g. describing links between micro- and macroscopic scale phenomena;
3. Making **predictions** on hypothetical scenarios (instead of growing physical samples);
4. Looking for (quantifiable) **complex system** properties in the model:
   - self-organisation;
   - pattern formation;
   - density distributions;
   - steady-states/equilibria or other types of dynamics

Examples mentioned so far:

Mutual inhibition and synergistic interaction between spores of different species



Clustering patterns of spores with different adhesive properties



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