



University
of Basel

Department
Biozentrum



Basel Computational Biology Seminar

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Probing group behaviors of genes and cells via biology-computer interface

Biological units, such as genes or cells, generate collective behaviors that are difficult to dissect purely by analyzing their individual behavior. Rather, comprehensive experimental understandings of such systems must account for all possible interactions between the players, including their environment: a formidable task. To achieve such analysis and testing for groups of bacteria, we developed a setup that couples many individual cells to computer models in real time, allowing selected portions of the biological interaction network to be controlled or replaced by exactly specified simulations. I will present the experimental platform, and discuss how it enables experiments that bridge individual and group behaviors of microbes, and of interacting genes.

Date: **Monday, April 8th, 2019**
Time: **16:00 h**
Room: **Lounge (13th floor), Klingelbergstrasse 61**
(Vis-à-vis Pharmazentrum)
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