



Berlin
Mathematical
School

BMS Days 2019

Tuesday 19 February 2019

BMS Loft, Urania, An der Urania 17, 10787 Berlin

11:00 Jochen Blath (TU Berlin)

15:30 Chris Wendl (HU Berlin)

Jochen Blath: Probabilistic models in theoretical population genetics

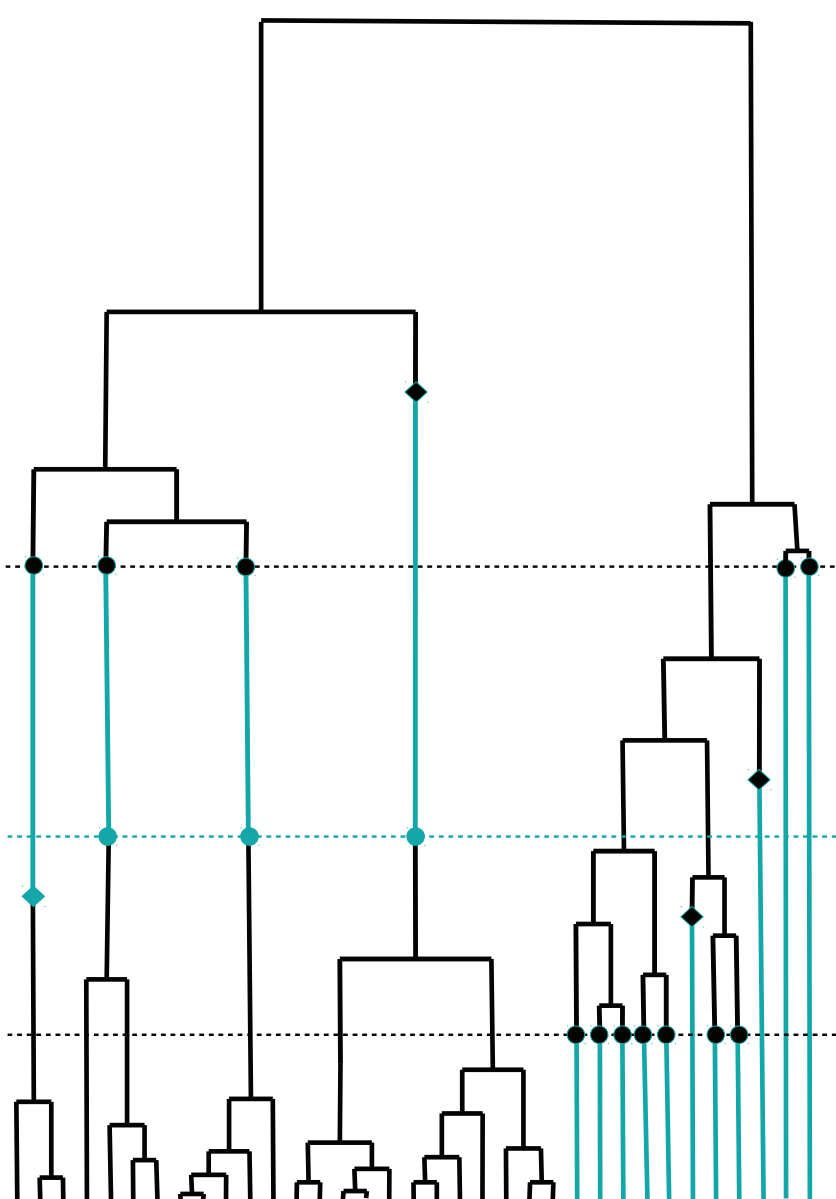
In this talk, Blath will discuss some of the basic probabilistic concepts and results from mathematical population genetics. After an introduction to the field, he will present some recent research on the role of "dormant states" in population genetics, which seem to play an important role as a survival strategy of microbial communities, leading to interesting new mathematical objects and predictions for the qualitative and quantitative interplay of evolutionary forces.

Jochen Blath is a professor for stochastic processes and their applications at the TU Berlin. His areas of research include measure-valued diffusions, interacting particle systems and probabilistic structures in evolution.

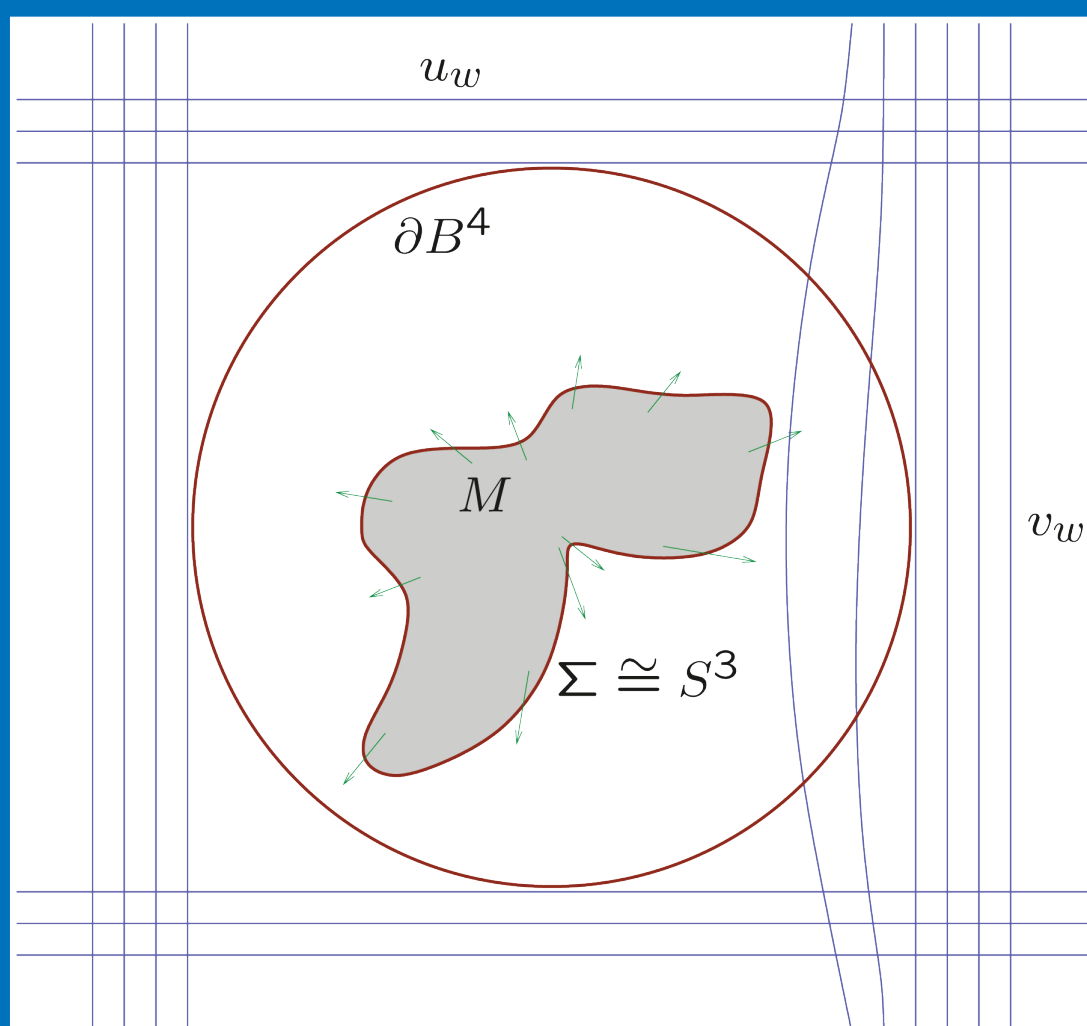
Chris Wendl: When is a (symplectic) manifold determined by its (contact) boundary?

This talk will be a (biased) introduction to symplectic topology and one of its most popular tools, Gromov's pseudoholomorphic curve theory. Wendl will review the origins of symplectic and contact manifolds, sketch a proof that there are no "exotic" symplectic fillings of the standard contact 3-sphere, and relate this to some more recent results and open questions.

Chris Wendl is a professor for differential geometry and global analysis at the HU Berlin. His research is in symplectic and contact topology, particularly the theory of pseudoholomorphic curves, applications to contact manifolds, and symplectic field theory.



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