

INVITED LECTURE

East Meets West:

How Globalization Launched a Honeybee Disease Epidemic



Australian National University

10:30 - 11:30 hours May 5th 2022

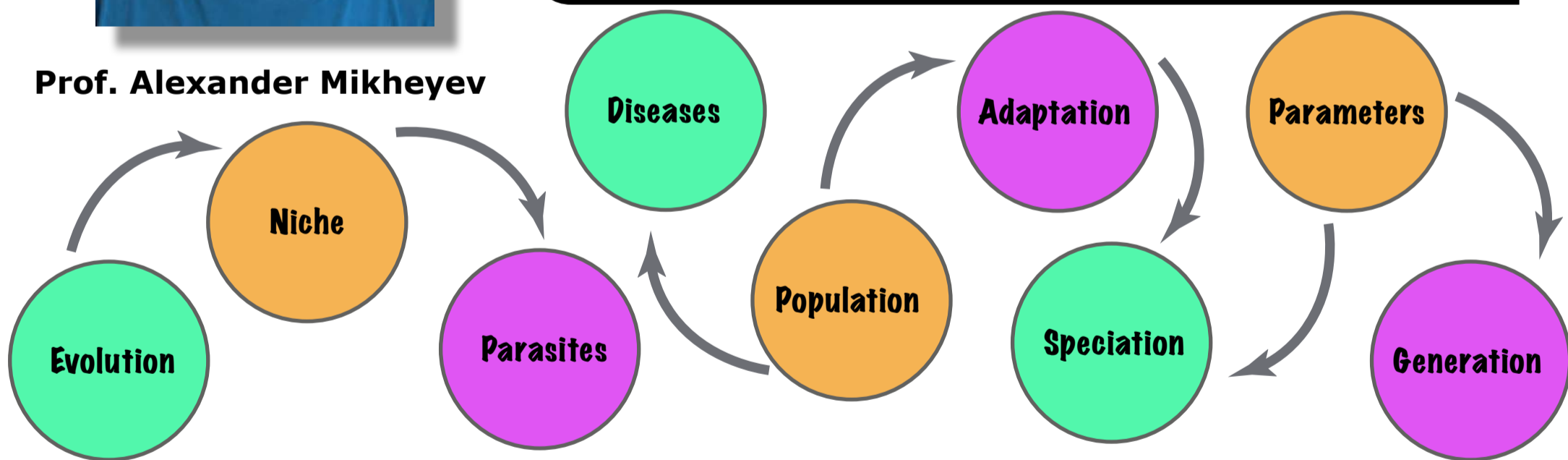
Venue: Classroom Complex, 5G1

Gathering and Refreshments at 10:15



Prof. Mikheyev is a Russian-American evolutionary biologist working at the Australian National University. He is also Head of the Ecology & Evolution Unit at Okinawa Institute of Sc. & Tech. Graduate University, Japan. His current research interest includes Biological adaptation, Phylogeny and Comparative analysis, and Host-Parasite interaction. He was also a recipient of the Synthesis group grant and Ignition grant in 2019 and has more than 100 papers in the journals of international repute.

Prof. Alexander Mikheyev



ABSTRACT: Host switching allows parasites to expand their niches. However, successful switching may require suites of adaptations and also may decrease performance on the old host. As a result, reductions in gene flow accompany many host switches, driving speciation. Because host switches tend to be rapid, it is difficult to study them in real-time, and their demographic parameters remain poorly understood. As a result, fundamental factors that control subsequent parasite evolution, such as the size of the switching population or the extent of immigration from the original host, remain largely unknown. To shed light on the host switching process, my lab has been studying honeybee parasites and viral diseases. With several generations per year, in bees we can study co-evolution taking place before our eyes. Our work shows how diseases evolve and how parasite speciation takes place.