

PSL-Qlife Summer School 2024

Quantitative Phage-Bacteria Dynamics Across Scales – July 8th -12th

Monday, July 8th

8:30 - 9:00 am Welcome Coffee – BDD hall

9:00 - 9:20 am **Patrick Charnay, Joshua Weitz**
Introduction
Amphi BDD

9:20 - 10:35 am **Joshua Weitz**
Virus Eco-Evolutionary Dynamics from Cells to Populations
Amphi BDD

10:35 - 11:00 am Coffee break – BDD hall

11:00 - 12:15 am **Ido Golding**
Principles of Viral-Induced Transformation of Cell Fate
Amphi BDD

12:15 - 1:30 pm Lunch
Green café

1:30 - 5:00 pm
Digital workshop

Foundations of Modeling Phage-Bacteria Dynamics Across Scales

Marian Dominguez-Mirazo
Tasos Marantos

Room annexes BDD 1-3

5:00 - 5:30 pm Coffee break – BDD hall

5:30 - 6:30 pm **Students flash talks**
Amphi BDD

6:30 - 8:00 pm **Poster session I Wine & Cheese**
Room annexes BDD 1-3

Tuesday, July 9th

8:30 - 9:00 am Coffee break – BDD hall

9:00 - 10:15 am **Laurent Debarbieux**
Optimizing phage therapy to treat pulmonary infections
Amphi BDD

10:15 - 10:45 am Coffee break – BDD hall

10:45 - 12:00 am **Jacopo Marchi**
Theory of Phage Therapy + Immunophage Synergy
Amphi BDD

12:00 - 1:30 pm Lunch
Green café

1:30 - 5:00 pm
Digital workshop

In vivo Phage Therapy Modeling

Jacopo Marchi
Jeremy Seurat
Marian Dominguez-Mirazo

Room annexes BDD 1-3

5:00 - 5:30 pm Coffee break - BDD hall

5:30 - 6:30 pm **Ido Golding**
Cell fate: a perspective from the single phage
Amphi BDD

7:30 pm **Speakers / TAs dinner**

Wednesday, July 10th

8:30 - 9:00 am Coffee break – BDD hall

9:00 - 10:15 am **Aude Bernheim**
Lessons from Anti-Phage Defense Systems
Amphi BDD

10:15 - 10:45 am Coffee break – BDD hall

10:45 - 12:00 am **Namiko Mitarai**
Principles of spatial spreading of phage - diversity and dormancy
Amphi BDD

12:00 - 1:30 pm Lunch
Green café

1:30 - 5:00 pm
Digital workshop

Spatial Modeling of Phage: From Individuals to Populations

Tasos Marantos
Jacopo Marchi
Marian Dominguez-Mirazo

Room annexes BDD 1-3

5:00 - 5:30 pm Coffee break – BDD hall

5:30 - 6:30 pm **Remy Chait**
Chemotaxis and coexistence between phage and bacterial hosts
Amphi BDD

Thursday, July 11th

8:30 - 9:00 am Coffee break – BDD hall

9:00 - 10:15 am **Claudia Igler**
The evolution of resistance: phage, plasmids, and persisters
Amphi BDD

10:15 - 10:45 am Coffee break – BDD hall

10:45 - 12:00 am **Anne Chevallereau**
Ecology and evolution of phage counter-defense
Amphi BDD

12:00 - 1:30 pm Lunch
Green café

1:30 - 5:00 pm
Digital workshop

Probabilistic inference of anti-phage defense systems using hidden Markov models
Defense

Florian Tesson
Hugo Vayssset
Jean Cury

Room annexes BDD 1-3

5:00 - 5:30 pm Coffee break - BDD hall

5:30 - 6:30 pm **Britt Koskella**
Phage impacts on & influence by complex microbiomes
Amphi BDD

6:30 - 8:00 pm **Poster session II & cocktail**
Room annexes BDD 1-3

Friday, July 12th

8:30 - 9:00 am Coffee break – BDD hall

9:00 - 10:15 am **David Demory**
Modeling Viruses Dynamics in the Global Oceans
Amphi BDD

10:15 - 10:45 am Coffee break – BDD hall

10:45 - 12:00 pm **Joshua Weitz**
Inefficient Viral Infections – Towards a New Marine Viral Paradigm
Amphi BDD

12:00 - 1:30 pm Lunch
Green café

1:30 - 5:00 pm
Digital workshop

Inference of quantitative viral traits from time series data

David Demory
Joshua Weitz
Marian Dominguez-Mirazo

Room annexes BDD 1-3

Talks, workshops, poster sessions, break at the BDD building:
11-13 rue Pierre et Marie Curie
75005 Paris
Ground floor

Lunchs at the Green café :
12 rue Lhomond 75005 Paris
Ground floor