Schedule sommer term seminar *Physics of viruses*
Frederik Graw, Ulrich Schwarz, Falko Ziebert

30 students, mainly physics, except if noted otherwise
1 speaker 20+10
2 speakers 30+15
3 speakers 40+20

Monday June 21 9-13

9.00-9.45
Caspar-Klug theory for capsids
Romain Chazotte and Linus von Klitzing

9.45-10.30
Energetics of capsid assembly
Margareta von Samson Himmelstierna

Break

10.45-11.30
Computer simulations of capsid assembly
Dominic Holst, Hans Olischlaeger and Elias Weber

11.30-12.15
Genome packing
Mohammed Sinan

Friday June 25 14-18

14.00-14.45
Virus uptake at membranes by endocytosis and fusion
Michelle Sommer (Mobi) and Felix Schnabel (Mobi)

14.45-15.30
Structure of SARS-CoV-2
Johannes Gebauer and Vanessa Nadia Huth

Break

15.45-16.30
Introduction to viral spread and epidemics
Catherine Knobloch and Julia Siegl

16.30-17.15
Viral kinetics of influenza infections
Moritz Sindram and Jonte Volkers

17.15-18.00
Spatial SIR-modelling for HIV
Jana Carolin Lechner and Hanchen Li

Monday June 28 9-13

9.00-9.45
SIR-models for SARS-CoV-2 pandemic

Julia Köberle (Mobi) and Anna Münch (Mobi)

9.45-10.45
Forecasting global pandemics and mitigation strategies
Ceren Ekinci, Gunho Jun, Elena Kaube (Mobi)

Break

11.00-11.45
Vaccination effects on SARS-CoV-2 epidemics
Lennart Heinz, Franka Neumann

Friday July 2 14-18

14.00-15.00
Epidemics in social contact networks and superspreading
Franziska Lam (Mobi), Jeanine Wippermann, Marco Wolf

15.00-15.45
Predicting influenza evolution
Szilard Varga (Biologie) and Arvinash Singam

15.45-16.15
Phylogenetics for predicting viral evolution
Josch Hagedorn