Modelling Resistance Ev Theoretical Methodology Symp 26-28 April 2023 Max Planck Institute for Evolutiona Plön, Germany		🔍 Wednesday 26th	16:00 - 16:30	Arne Traulsen Ecological vs. game theoretical models for interaction (opening to method sessions)
08:45 - 09:00		Welcome	16:30 - 18:00	Method Session L
09:00 - 10:00	Hildegard Uecker	Stochastic models of resistance evolution	18:00 - 19:00	
10:00 - 10:30		Coffee Break	19:00 - 20:00	Discussion
10:30 - 11:00	Giorgio Boccarella	The importance of persistence for the evolvability of antibiotic resistance		+ Thursday 27th
11:00 - 11:30	Pierre Lafont	Mathematical models of collective antibiotic tolerance	09:00 - 10:00	Helen Alexander Stochastic emergence of drug resistance in variable environments
11:30 - 12:00	lan Dewan	Evolution of multidrug resistance from plasmid-mediated heterozygosity	10:00 - 10:30	
م 12:00 - 12:30	Muhittin Mungan	Memory and Hysteresis in the adaptive evolution of bacterial resistance in environments of varving antibiotic	10:30 - 11:00	Linda Aulin Model-based design of innovative treatment strategies to suppress antimicrobial resistance using collateral sensitivity
)) ) ) 12:30 - 12:35		Group picture	11:00 - 11:30	Eshan King Fitness seascapes reveal heterogeneous mutant selection windows in clinically- relevant pharmacokinetic models
3∞ 12:35 - 13:30 - (		Lunch break	11:30 - 12:00	Anuraag Bukkuri Modeling Stress-Induced Responses in Bacterial and Cancer Therapeutic Resistance
13:30 - 14:30	Jasmine Foo	Computational methods for inferring tumor evolution and heterogeneity	12:00 - 12:30	Irina Kareva Mechanisms of non-genetic resistance to cancer therapy
14:30 - 15:00 - II 🖉 泠		Coffee break	12:30 - 13:30	Lunch break
15:00 - 15:30	Jona Kayser	Multi-step Resistance Evolution in Compact Populations	13:30 - 14:30	Jacob Scott Perturbing the ecological forces underlying evolutionary therapy
15:30 - 16:00	Michael Raatz	What to target in evolving populations – population size, growth or survival?	14:30 - 15:00	Coffee break

15:00 - 17:00	Method Session II		
17:00 - 19:00	Poster Session (with finger food and drinks)	Malin Andersson	Mechanistic pharmacokinetic/pharmacodynamic understanding of the antibiotic therapy of piperacillin and tazobactam and its role in resistance development combining in vitro and in silico approaches
	Friday 28th	Peter A. Embacher	Stochastic modelling of lineage correlations in glioblastoma cells to capture non-genetic heterogeneity
09:00 - 10:00	Barbora Trubenová Modeling drug resistance in bacterial biofilms and parasitic worms	Rotem Gross	Role of bacterial filamentation in population dynamics at sub-MIC concentrations of cefotaxime
	Coffee break	Henrike Hedrich	Modelling growth of pancreatic cancer cell lines and unveiling treatment effects
10:30 - 11:00	Joachim Krug Competing effects of mutation bias and selection on resistance evolution	Teemu Kuosmanen	Establishment threshold and the inference of establishment rates along a concentration gradient
11:00 - 11:30	Jessica Renz Learning and predicting the pathways of AMR evolution with hypercubic inference	Dana Lauenroth	Persistence and resistance evolution in weeds with complex life cycle
() 11:30 - 12:00	Malgorzata Weh Modeling selection for evolvability in the evolution of cancer therapy resistance	Moitrish Majumdar	A network model for the growth of a bacterial population in adverse environments
		Catharina Meyer	Pharmacodynamics of inter-species interactions in polymicrobial infections
12:00 - 12:30	Repeatability of antibiotic resistance Suman G. Das evolution for heavy-tailed distributions of fitness effects	Elena Pascual Garcia	Towards rational design of antibiotic therapies: a mechanistic approach
12:30 - 13:30	Lunch break	Nikhil Sharma	On the role of deleterious mutant regime in steering long-term evolution
13:30 - 14:30	Tobias Bollenbach Quantitative descriptions of bacterial responses to antibiotics	Pejman Shojaee	Predicting the time to relapse for individual patients with glioblastoma for optimising the second line treatment
14:30 - 15:00	Coffee break	Sebastian T. Tandar	Modeling collateral sensitivity-based treatments to suppress antibiotic resistance in Streptococcus pneumoniae
15:00 - 17:00	Method Session III	Qianci Yang	Mathematical modelling of effector T cell stimulation, elimination, and binding with target cells
17:00 - 18:00	Closing remarks		
18:00 - 19:00	Barbecue at the institute	Nicole Zimmermann	quantitative understanding of killing behaviour and resistance evolution dynamics of antibiotic combinations