

Final Syllabus for the Fifth Summer School on Computational Modeling

Couches, France

The detailed program of the Summer School is shown below. (F&L refers to Farrell & Lewandowsky, 2018, *Computational Modeling of Cognition and Behavior*, Cambridge University Press.)

Date (July)	Day of Week	Day		Lecture Topic	Notes	Instructor
7	Sat.	0			arrival	
			5 PM	Welcome, Poster Session Cancelled owing to SNCF strike		All
Training in [R] Programming						
8	Sun.	1	All day	[R] Programming		SL + All
9	Mon.	2	9-5	[R] Programming (and memory experiment)		SL + All
			5 PM	Speed talks Poster session rescheduled		All
Computational Modeling						
				Track 1	Track 2	
10	Tue.	3	AM	Overview and Principles of Modeling	Ch. 1, 2 F&L	SL
			PM	From Verbal Theories to Computational Models	Ch. 1, 2 F&L	KO
			3 PM	Project Time: Meet with Supervisors		All
11	Wed.	4	AM	Parameter Estimation, From Basics to Maximum Likelihood	Ch. 3, 4 F&L	SL, SF
			PM	Parameter Estimation & Maximum Likelihood Exercises: Memory and Judgment/Decision-Making Models		GB
12	Thurs.	5	AM	Bayesian modeling	Ch. 7, 8 F&L	JT
			PM	Exercises on Bayesian modeling		JT
			3 PM	Project Time		All
13	Fri.	6	AM	Model Selection and Drawing Inferences from Models	Chapter 10 F&L	SF, CD
			PM	Model selection exercises: AIC, BIC		SF, CD
14	Sat.	7	AM	Advanced Bayesian Modeling (Hierarchical Models)	Chapter 9 F&L	JT, SL, KO, CD

			PM	Exercises on Hierarchical Bayesian Models			JT, SL, KO, CD
			3 PM	Project Time			All
15	Sun.	8	Free Day				
16	Mon.	9	All day	Project and presentation preparation			All
17	Tues.	10	AM	Multinomial tree models	Models of Perceptual Decision Making		AB CL
			PM	Tournament: Multinomial models	Tournament: Perceptual models		AB CL
18	Wed.	11	AM	Connectionist networks intro (BF) - Ch. 13 F&L	Models of visual working memory		BF KO
			PM	Data Imputation techniques; Deep Neural Networks (BF)	Exercises for models of visual working memory		BF KO
			3 PM	Project time			
			5 PM	Keynote Speaker: Simon Thorpe			
19	Thurs.	12	AM	Agent-based models (GB)	Diffusion models of speeded choice (CD) - Ch. 14 F&L		GB CD
			PM	Exercises on agent-based models (GB)	Exercises on Diffusion models of speeded choice (CD)		GB CD
			3 PM	Project Time and Presentation Preparation			All
20	Fri.	13	All day	Presentations			All
			Evening	Final banquet			
21	Sat.	14				departure	