

## Data Science: Multiple imputation in practice (S28)

12-15 July 2021

Course Director: *Dr. Gerko Vink*

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*Please note that the schedule is in Central European Summer Time*

Saturday and Sunday (10 & 11 July)		
Time	Activity	Description
12.00-18.00	<i>Key pick up</i>	<i>You will find the exact key pick up location in the pre-departure information, which becomes available after you have paid the course fee.</i>

Day	Time	Type	Description	Location
Monday	09:00-10.30	Lecture	Ad-hoc methods	
	-	<i>Coffee/Tea Break</i>		
	10.45-11.45	Computer Lab	Ad-hoc methods with mice in R	
	11.45-12.15	Plenary discussion	Students and teachers discuss and present their solutions to the computer lab.	
	-	<i>Lunch Break</i>		
	13.15-14.30	Lecture	The theory of Multiple Imputation Univariate imputation	
	-	<i>Coffee/Tea Break</i>		
	14.45-15.45	Computer Lab	Univariate imputation with mice in R	
15.45-16.00	Plenary discussion	Students and teachers discuss and present their solutions to the computer lab.		

Tuesday	09:00-10.30	Lecture	Multivariate imputation: - Multiple imputation - Diagnostics for imputation	
	-	<i>Coffee/Tea Break</i>		
	10.45-11.45	Computer Lab	Multivariate imputation in R	
	11.45-12.15	Plenary discussion	Students and teachers discuss and present their solutions to the computer lab.	
	-	<i>Lunch Break</i>		
	13.15-14.30	Lecture	Modelling choices and derived variables	
	-	<i>Coffee/Tea Break</i>		
	14.45-15.45	Computer Lab	Multiple imputation of derived variables	
15.45-16.00	Plenary discussion	Students and teachers discuss and present their solutions to the computer lab.		

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Wednesday	09:00-10.30	Lecture	Multiple imputation of : - Non-normal data - Longitudinal data
	-	<i>Coffee/Tea Break</i>	
	10.45-11.45	Computer Lab	Combining inferences
	11.45-12.15	Plenary discussion	Students and teachers discuss and present their solutions to the computer lab.
	-	<i>Lunch Break</i>	
	13.15-14.30	Lecture	Sensitivity analysis and reporting
	-	<i>Coffee/Tea Break</i>	
	14.45-15.45	Computer Lab	Sensitivity analysis with mice in R
	15.45-16.00	Plenary discussion	Students and teachers discuss and present their solutions to the computer lab.

Thursday	09:00-10.30	Lecture	Multi-level Imputation
	-	<i>Coffee/Tea Break</i>	
	10.45-11.45	Computer Lab	Multi-level imputation
	11.45-12.15	Plenary discussion	Students and teachers discuss and present their solutions to the computer lab.
	-	<i>Lunch Break</i>	
	13.15-14.30	Lecture	Capita selecta
	-	<i>Coffee/Tea Break</i>	
	14.45-15.45	Computer Lab	Get advice and/or support on solving your own missing data problem.
	15.45-16.00	Plenary discussion	Students and teachers discuss real life missing data problems