Data Science: Multiple imputation in practice (S28)
08-11 July 2024
Course Director: Dr. Gerko Vink
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Hybrid course

Please note that the schedule is in Central European Summer Time

| Day | Time | Type | Description | Location |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { त } \\ & \text { त्0 } \\ & \text { ¿ } \end{aligned}$ | 09:00-10.30 | Lecture | Ad-hoc methods | Victor J. Koningsberger building, <br> room ATLAS <br> or Teams |
|  | - | Coffee/Tea Break |  |  |
|  | 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. |  |
|  | - | Lunch Break | In Educatorium |  |
|  | 13.15-14.30 | Lecture | The theory of Multiple Imputation Univariate imputation |  |
|  | - | Coffee/Tea Break |  |  |
|  | 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. |  |


|  | 09:00-10.30 | Lecture | Multivariate imputation: <br> - Multiple imputation <br> - Diagnostics for imputation | Victor J. Koningsberger building, room ATLAS or Teams |
| :---: | :---: | :---: | :---: | :---: |
|  | - | Coffee/Tea Break |  |  |
|  | 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. |  |
|  | - | Lunch Break | In Educatorium |  |
|  | 13.15-14.30 | Lecture | Modelling choices and derived variables |  |
|  | - | Coffee/Tea Break |  |  |
|  | 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. |  |


| Day | Time | Type | Description | Location |
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| $\begin{aligned} & \text { त } \\ & \frac{10}{0} \\ & 0 \\ & \stackrel{c}{0} \\ & \vdots \end{aligned}$ | 09:00-10.30 | Lecture | Multiple imputation of : <br> - Non-normal data <br> - Longitudinal data | Victor J. Koningsberger building, <br> room ATLAS <br> or Teams |
|  | - | Coffee/Tea Break |  |  |
|  | 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. |  |
|  | - | Lunch Break | In Educatorium |  |
|  | 13.15-14.30 | Lecture | Sensitivity analysis and reporting |  |
|  | - | Coffee/Tea Break |  |  |
|  | 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. |  |


|  | 09:00-10.30 | Lecture | Advanced topics | Ruppert building, <br> room Paars <br> or Teams |
| :---: | :---: | :---: | :---: | :---: |
|  | - | Coffee/Tea Break |  |  |
|  | 10.45-11.45 | Computer Lab | Data synthesis and custom imputation models |  |
|  | 11.45-12.15 | Plenary discussion | Students and teachers discuss and present their solutions to the computer lab. |  |
|  | - | Lunch Break | In Educatorium |  |
|  | 13.15-14.30 | Lecture | Capita selecta |  |
|  | - | Coffee/Tea Break |  |  |
|  | 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 |  |

