

An interdisciplinary summer school on mining of biological data for master and PhD students
August 2019, Minsk, Belarus

| | Saturday 10. | Sunday 11. | Monday 12. | Tuesday 13. | Wednesday 14. | Thursday 15. | Friday 16. | Saturday 17. | |
|-------------|---|--|---|--|---|--|---|--|--|
| Time | | | Course | Course | Course | Course | Course | Mini-workshop | |
| 8:15-8:30 | | | Introduction | | | | | | |
| 8:30-9:15 | Arrival and check in at the hotel, dinner | Social program whole day: Tour to the Castles of Mir and Nesvizh. Lunch will be served | Orange Introduction (Dr. Marko Toplak University of Ljubljana and SMIS Beam-line Synchrotron Soleil) | | Orange Introduction (Dr. Marko Toplak) | Invited lecture: Dr. Ferenc Borondics, SMIS Beam-line Synchrotron Soleil, Paris, France Big facilities, big data | Invited lecture: Prof. Dr. Tamaz Mdzinarashvili, Faculty of Exact and Natural Sciences, GE- Ivane Javakhishvili Tbilisi State University (GE) Biological thermodynamics | Invited lecture: Dr. Ferenc Borondics, SMIS Beam-line Synchrotron Soleil, Paris, France Challenges in data analysis of infrared spectra from biological and biomedical samples | |
| 09:15-10:00 | | | Module 3: Spectroscopic methods (Olga) | Module 4: Analytical methods used in biology (Olga) | Module 5: Biomedical Imaging (Vassili) | Group work (Experts in a Team) | Group work (Experts in a Team) | Workshop with research presentations by PhD students | |
| 10:00-10:15 | | | | | | | | | |
| 10:15-10:45 | | | Module 6: Basic Statistics (Victor) | Module 9: Machine learning (Roman) | Module 8: Clustering (Mikalai) | Group work (Experts in a Team) | Group work (Experts in a Team) | Workshop with research presentations by PhD students | |
| 10:45-12:00 | | | Tutorial: Basic statistics (Victor) | Tutorial: Machine learning (Roman) | Tutorial: Clustering (Mikalai) | | | | |
| 12-13 | | | | | | | | | |
| 13:00-13:30 | | | Module 7: PCA (Achim) | Module 10: Deep learning (Vassili) Room: U227 | Tutorial for modules 6- 12, further Data Analysis and Orange Rooms: U223 and U226 | Group work (Experts in a Team) | Group work presentations | Workshop with research presentations by PhD students | |
| 13:30-14:45 | | | Tutorial: PCA (Achim) | Tutorial: Deep learning (Vassili) | | | | | |
| 14:45-15:00 | | | Break | | | | | | |
| 15:00-15:30 | | | Module 12: Data pre- treatment (Achim) | Module 11: Data analysis of genetic data (Vasily) | | | | | |
| 15:30-16:45 | | | Tutorial: Data pre- treatment (Achim) | Tutorial: Data analysis of genetic data (Vasily) | | | | | |
| Evening | | | Volley ball/soccer and barbecue | Claustrophobia Escape rooms | Alivaria beer museum | Free | Free | Summer School Gala Dinner | |

All lecture rooms are in the faculty of International Relations.