

## Programming Schedule

| Day   | Time           | Activity  | Details  |
|---|----------------|---|--|
| Monday<br>January - 19<br>( Week 1)                 | 08:30 – 09:00  | Opening Ceremony  | Welcome and event introduction   |
|   | 09:00 - 09:30  | Official Photo  | Official photo of the event  |
|   | 17:30 - 19:00  | Opening cocktail  |  |
| Monday to Thursday<br>(Week 1)<br><br>January 19-22 | 09:00 – 10:30  | Lecture 1<br><br><u>(Apenas na segunda-feira - 19/01 esse curso começará as 09:30h devido a Cerimônia de abertura e foto oficial. Nos demais dias seguem normalmente)</u> | Course: Topological Data Analysis in Complex Systems. Instructor: <b>Fernando A. N. Santos</b> - (University of Amsterdam - UvA)   |
|   | 10:45 – 12:15  | Lecture 2   | Course: Mathematical Modeling of Epidemiological Systems. Instructor: <b>Daniilo B. de Souza</b> (Basque Center for Applied Mathematics - Spain), <b>João Gondim UFPE</b> (Universidade Federal de Pernambuco - Brazil), |
|   | 12:30 – 14:00  | Lunch   | Lunch break  |
|   | 14:00 – 15:30  | Practical Session/ Application (Course 1)   | Discussions, projects, group activities, and programming with the instructors  |
|   | 15:30 – 16:00  | Coffee Break  | Break  |
|   | 16:00 – 17:30  | Practical Session / Application (Course 2)  | Discussions, projects, group activities, and programming with the instructors  |
| Additional activity<br>Wednesday - 21/01<br>Week 1  | 15:00 – 15:30  | Poster Session  | Participant Presentations  |
| Friday<br>(Week 1)<br>January 23                    | 09:00 -- 12:30 | Thematics Sessions - UFPE   | Parallel talks on research   |
|   | 14:00 -- 17:30 | Thematics Sessions - UFPE   | Parallel talks on research   |

| Saturday<br>January 24                          | 09:00 -- 16:00 | Cultural Activities                          | Optional cultural activities -<br>Olinda and Recife Antigo  |
|---|----------------|--|---|
| Day   | Time           | Activity                                     | Details   |
| Monday to Thursday<br>(Week 2)<br>January 26-29 | 09:00 – 10:30  | Lecture 3                                    | Course: Mathematical Modeling in Neuroscience. Instructors: <b>Marilyn Gatica</b> (Institute Northeastern University London - UK), <b>Leonardo Gollo</b> (Campus Universitat de les Illes Balears - Spain), <b>Fernanda Selingardi</b> (Universidade de Alagoas - Brazil) |
|   | 10:45 -- 11:15 | Lecture 4                                    | Course: Markov Decision Processes and Reinforcement Learning. Instructors: <b>Luiz Felipe Martins</b> (Cleveland State University - EUA )   |
|   | 12:30 -- 14:00 | Lunch  | Lunch break   |
|   | 14:00 – 15:30  | Practical Session / Application (Course 3)   | Discussions, projects, group activities, and programming with the instructors   |
|   | 15:30 -- 16:00 | Coffee Break                                 | Break   |
|   | 16:00 – 17:30  | Practical Session / Application (Course 4)   | Discussions, projects, group activities, and programming with the instructors   |
| Additional activity -<br>Monday 26/01<br>Week 1 | 15:00 - 15:30  | Short oral presentations by the participants | A space for participants to discuss their research  |
| Friday<br><br>(Week 2)<br>January 30            | 09:00 -- 12:30 | Thematics Sessions - UFPE                    | Parallel talks on researc   |
|   | 14:00 -- 17:30 | Thematics Sessions - UFPE                    | Parallel talks on researc   |
| À definir                                       | ?              | Closing Ceremony                             | Farewell event and conclusion of the program  |

### Research Talks & Thematic Sessions

1. Mathematical Analysis - Data: 23/01 - Horário: 09:00 às 17:30 - **Sessão Confirmada - Palestras no site**
2. Complex Systems in Physics and Statistics - Data: 23/01 - Horário: 09:00 às 17:30 - **Sessão Confirmada - Palestras no site**
3. Algebra - Data: 23/01 - Horário: 09:00 às 12:30 - **Sessão Confirmada - Palestras no site**
4. **Combinatorics - Data: 23/01 - Horário: 09:00 às 17:30 - Sessão Pendente**
5. Dynamical Systems - Data: 30/01 - Horário: 09:00 às 17:30 - **Sessão Confirmada - Palestras no site**
6. Differential Geometry - Data: 30/01 - Horário: 09:00 às 17:30 - **Sessão Confirmada - Palestras no site**
7. Neurosciences - Data: 30/01 - Horário: 09:00 às 17:30 - **Sessão Confirmada - Palestras no site**
8. Stochastic Modeling - Data: 30/01 - Horário: 09:00 às 17:30 - **Sessão Confirmada - Palestras pendentes**