Mathematical Institute
Polish Academy of Sciences

COURSE DESCRIPTION

Course Name	Computational Biology
Course Type	Reserach seminar
Supervisor	Ryszard Rudnicki
ECTS credit allocation	1 – IM PAN Ph. D. program; 3 recommended for MA programs
Duration	Two semesters
Number of hours	30
Language	English or Polish if every participant speaks Polish
Prerequisites	Theory of differential equation and theory of probability on the graduated level and the knowledge of the basic models and methods of mathematical biology and bioinformatics. Seminar is addressed to researchers and PhD students specializing in applications of mathematics in biology.
Course content	During the seminar participants present their scientific results and other publications concerning current research in applications of mathematics in biology and medicine. In the seminar take part scientists from the whole Poland and they present their own research.
Recommended reading	1. R. Rudnicki, Models and methods of mathematical biology (in Polish), preprint. 2. H.R. Thieme, Mathematics in Population Biology, Princeton University Press, Princeton, 2003. 3. L.J.S. Allen, An Introduction to Stochastic Processes with Applications to Biology, Chapman and Hall/CRC, 2010.
Learning outcomes	The participants will familiarize with the current research in the field of mathematical biology and develop a mastery of their own research and writing of publications.
Assessment methods and criteria	On the grounds of the student presentation at the seminar.
Remarks	