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# PTBI Symposium 2017

X Symposium of the Polish Bioinformatics Society

27–29 September 2017 | Uniejow, Poland

## PROGRAM

### WEDNESDAY, September 27

12:00 - 13:45	<b>Registration and lunch</b>
13:45 - 14:00	<b>Conference opening</b>
14:00 - 15:40	<b>Session W1</b> Chair: Małgorzata Kotulska
14:00 - 14:20	Paweł P. Woźniak, <i>Wroclaw University of Science and Technology, Poland</i> Forecasting Residue - Residue Contact Prediction Accuracy
14:20 - 14:40	Aleksandra I. Jarmolińska, <i>University of Warsaw, Poland</i> GapRepairer - Repair Protein Structures and Their Topology
14:40 - 15:00	Tymoteusz Oleniecki, <i>University of Warsaw, Poland</i> CABS-flex Standalone Application for Fast Simulations of Flexibility of Globular Proteins
15:00 - 15:20	Sebastian Bittrich, <i>Mittweida University of Applied Sciences, Germany</i> eQuant: a Web Service for Energy-Based Model Quality Assessment
15:20 - 15:40	Alexander Eisold, <i>Mittweida University of Applied Sciences, Germany</i> In Silico Method for Transformation of DNA/RNA Aptamers into Peptide Nucleic Acid Aptamers
15:40 - 16:00	<b>Coffee break</b>
16:00 - 17:40	<b>Session W2</b> Chair: Aleksandra Gruca
16:00 - 16:40	<b>Keynote speaker:</b> Dirk Labudde, <i>Mittweida University of Applied Sciences, Germany</i> Watson meets Watson – How Today's Life Science Technologies Can Shape the Crime Sciences of Tomorrow
16:40 - 17:00	Radosław Piliszek, <i>University of Bialystok, Poland</i> MDFS - a Software Library for Multidimensional Feature Selection in Search for Relevant Genes
17:00 - 17:20	Małgorzata Marszałek-Zeńczak, <i>Institute of Bioorganic Chemistry PAS, Poland</i> Population-Scale Detection of Copy Number Variations in Arabidopsis Thaliana Genome
17:20 - 17:40	Tomasz Żok, <i>Poznan University of Technology, Poland</i> New Approaches to Determine RNA Pseudoknot Order
18:00 - 21:00	<b>Poster session and buffet</b>
19:00 - 20:00	PTBI Board meeting (members of the Board only)

## THURSDAY, September 28

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07:30 - 08:00	<b>Jogging with the treasurer</b>
09:00 - 10:40	<b>Session T1</b> Chair: Wiesław Nowak
09:00 - 09:40	<b>Keynote speaker:</b> Thomas Villmann, <i>Mittweida University of Applied Sciences, Germany</i> Classification and Pattern Recognition in Bioinformatics by Prototype-Based Machine Learning Models
09:40 - 10:00	Florian Kaiser, <i>Mittweida University of Applied Sciences, Germany</i> Mining Functionally Conserved Building Blocks in Biological Macromolecules
10:00 - 10:20	Aleksandra Suwalska, <i>Silesian University of Technology, Poland</i> The Application of Deep Convolutional Neural Networks in the Automated Diagnosis of Early Alzheimer Disease on Magnetic Resonance Images
10:20 - 10:40	Michał Ciach, <i>University of Warsaw, Poland</i> Estimation of Intensities of Reactions Triggered by Electron Transfer in Top-Down Mass Spectrometry
10:40 - 11:00	<b>Conference photo and coffee</b>
11:00 - 13:00	<b>Social swimming</b> ( <i>Entrance to Uniejów Thermal baths is not included in the registration fee. Guests accommodated in Zamek and Dom Pracy Twórczej have free entrance to the Therms for 3 hours.</i> )
13:00 - 14:00	<b>Lunch</b>
14:00 - 15:40	<b>Session T2</b> Chair: Bartek Wilczyński
14:00 - 14:40	<b>Keynote speaker:</b> Maciej Komosiński, <i>Poznan University of Technology, Poland</i> Undirected Evolution of Simulated Stick Creatures
14:40 - 15:00	Paweł Błażej, <i>University of Wrocław, Poland</i> Properties of Alternative Genetic Codes in Comparison with the Canonical Genetic Code and Theoretical Codon Assignments
15:00 - 15:20	Małgorzata Wnętrzak, <i>University of Wrocław, Poland</i> The Application of Multiobjective Approach in the Optimization of the Genetic Code
15:20 - 15:40	Jarosław Paszek, <i>University of Warsaw, Poland</i> Algorithms for Genomic Duplication Models
15:40 - 16:00	<b>Coffee break</b>
16:00 - 17:10	<b>Session T3</b> Chair: Paweł Górecki
16:00 - 16:20	Maciej Błaszczak, <i>University of Warsaw, Poland</i> Theoretical Methods for Structure Prediction of Proteins and Protein-Peptide Complexes
16:20 - 16:35	Melania Nowicka, <i>Poznan University of Technology, Poland</i> Codon Pair Bias Optimization in Synthetic Open Reading Frame Design
16:35 - 16:50	Anita Dudek, <i>University of Warsaw, Poland</i> How Good are Poisson-Boltzmann Calculations for Protein Hydration Free Energy
16:50 - 17:05	Aleksandra Świercz (on behalf of Piotr Żurkowski), <i>Poznan University of Technology, Poland</i> Graph Algorithms for DNA Sequencing - Origins, Current Models and the Future
17:30 - 18:30	<b>PTBI Convention</b>
19:00 - 22:00	<b>Conference dinner</b>

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## FRIDAY, September 29

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09:00 - 10:40	<b>Session F1</b> Chair: Anna Gambin
09:00 - 09:40	<b>Keynote speaker:</b> Jacek Błażewicz, <i>Poznan University of Technology, Poland</i> Bioinformatics for RNA world theory
09:40 - 10:00	Robert Nowak, <i>Warsaw University of Technology, Poland</i> Detecting Genomic Rearrangements Using Markers
10:00 - 10:20	Maciej Miłostan, <i>Poznan University of Technology, Poland</i> Sharing of Life Sciences Linked Data - State of the Art and Challenges
10:20 - 10:40	Krzysztof Mnich, <i>University of Białystok, Poland</i> Critical Line Algorithm for Combining Classifiers
10:40 - 10:50	<b>Closing remarks</b>
10:50 - 11:30	<b>Coffee and lunchbox</b>
11:00 - 12:30	<b>Session F2 (Workshop session)</b> Chair: Sebastian Kmiecik

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