

Autumn Workshops PTBI 2020

26 November 2020

9:00	Welcome
9:10	Session 1 Chair: Marta Szachniuk
9:10	Authors: Joanna Miskiewicz, Mariusz Popena, Joanna Sarzynska, Tomasz Zok, Marta Szachniuk. Title: In silico exploration of quadruplex structures.
9:20	Authors: Jakub Wiedeman, Maciej Antczak, Jacek Kaczor, Maciej Miłostan, Tomasz Zok, Marta Szachniuk. Title: RNA junctions from a 3D structure perspective.
9:30	Authors: Piotr Kłosowicz, Tomasz Zok. Title: The influence of structure size on similarity metrics values.
9:40	Session 1 Q&A
9:50	Break
10:00	Session 2 Chair: Tomasz Zok
10:00	Authors: Tomasz Wozniak, Małgorzata Sajek, Jadwiga Jaruzelska, Marcin Sajek. Title: RNAalign2D- RNA sequence and structure multiple alignment tool, based on pseudo-amino acids substitution matrix.
10:10	Authors: Justyna Kryś, Monika Pikuzinska, Dominik Gront. Title: Mining biomacromolecular interactions with the BioShell package.
10:20	Authors: Natalia Szulc, Zuzanna Mackiewicz, Janusz Bujnicki, Filip Stefaniak. Title: fingerRNAt - a novel tool for high-throughput analysis of nucleic acid-ligand interactions.
10:30	Session 2 Q&A
10:40	Break
10:50	Session 3 Chair: Michał J. Dąbrowski
10:50	Authors: Przemysław Stawczyk, Robert Nowak. Title: Binary genome maps assembly.
11:00	Authors: Sylwester Swat, Artur Laskowski, Jan Badura, Wojciech Frohberg, Paweł Wojciechowski, Aleksandra Swiercz, Marta Kasprzak, Jacek Błazewicz. Title: A new overlap graph method for DNA sequence assembly.
11:10	Authors: Marcin Piwowar, Dominik Gront. Title: Automated approach for sequence profile generation.
11:20	Authors: Michał Kowalski, Alina Frolova, Witold Wydmanski, Wojciech Branicki, Paweł Łabaj. Title: In silico evaluation of SARS-CoV-2 primers performance.

11:30	Session 3 Q&A
11:40	Break
11:50	Session 4 Chair: Witold Rudnicki
11:50	Author: Wiktor Kusmirek. Title: Estimated nucleotide reconstruction quality symbols of basecalling tools for Oxford Nanopore sequencing.
12:00	Authors: Krzysztof Kotlarz, Magda Mielczarek, Tomasz Suchocki, Bartosz Czech, Bernt Guldbbrandtsen, Joanna Szyda. Title: Dig (deep)er - Deep learning algorithms for the imbalanced classification of correct and incorrect SNP genotypes from WGS pipelines.
12:10	Authors: Mateusz Kołomanski, Joanna Szyda, Magdalena Fraszczak, Magda Mielczarek. Title: DNA sequence features underlying large-scale duplications and deletions in human.
12:20	Session 4 Q&A
12:30	Break
12:40	Session 5 Chair: Bartosz Wojtas
12:40	Authors: Sonia Wróbel, Ewa Stepien, Cezary Turek, Monika Piwowar. Title: Canonical Correlation- based bioinformatic analysis for effective melanoma biomarker discovery.
12:50	Authors: Marta Jardimowska, Bartosz Wojtas, Malgorzata Perycz, Bozena Kaminska, Michal J. Dabrowski. Title: REST and ZBTB33 in glioma REST ChIP-seq peaks - partners or competitors?
13:00	Authors: Agata Dziedzic, Marta Jardimowska, Marcin Grynberg, Michał J. Dabrowski. Title: DNA methylation patterns of active enhancers specific for <i>pilocytic astrocytoma</i> and Higher Grade Glioma samples.
13:10	Authors: Agata Muszynska, Paweł P. Łabaj. Title: Novel alternative splicing events detection in human genome with Spladder.
13:20	Session 5 Q&A
13:30	End of day 1
16:00	General meeting of the Polish Bioinformatics Society

27 November 2020

9:00	Welcome
9:10	Session 6 Chair: Mateusz Rezler
9:10	Authors: Kaustav Sengupta, Michal Denkiewicz, Anup Kumar Halder, Subhadip Basu, Dariusz Plewczynski. Title: BioMetaNet: Meta-Network model for human lymphoblastoid cell lines representing complete biological interactome.
9:20	Authors: Piotr Radzinski, Michał Startek, Anna Gambin. Title: MASTERMIND: The Best Linear Model to Accurately Determine Monoisotopic Mass.
9:30	Authors: Mateusz Skłodowski, Joanna M. Macnar, Dominik Gront. Title: Novel approach to search for interdigitated proteins - unusual domain swapped topology.
9:40	Authors: Joanna M. Macnar, Wlodek Minor, Dominik Gront. Title: Analysis of small molecules parameters in ligand-protein complexes.
9:50	Session 6 Q&A
10:00	Break
10:10	Session 7 Chair: Michal Draminski
10:10	Author: Tomasz Klonecki. Title: Cost-sensitive feature selection - information theory approach.
10:20	Authors: Radosław Piliszek, Witold Rudnicki. Title: Hierarchical clustering in search for the most relevant variables in small-n-large-p datasets.
10:30	Authors: Paweł Szczerbiak, Douglas Renfrew, Julia Koehler Leman, Daniel Berenberg, Chris Chandler, Vladimir Gligorijevic, Richard Bonneau, Tomasz Kosciółek. Title: Exploring the microbiome protein structure space using simulations and deep learning.
10:40	Authors: Mary Maranga, Paweł P. Łabaj, Richard Bonneau, Tommi Vatanen, Tomasz Kosciółek. Title: Comprehensive functional annotation of metagenomes and microbial genomes using deep learning-based methods.
10:50	Authors: Katarzyna Kopera, Dedan Githae, Maria Kulecka, Jerzy Ostrowski, Paweł P. Łabaj, Tomasz Kosciółek. Title: Standardizing 16S rRNA gene sequencing downstream analysis for Oxford Nanopore and Ion Torrent technologies.
11:00	Session 7 Q&A
11:10	Break
11:20	Session 8 Chair: Małgorzata Perycz

	Best MSc Thesis Competition laureates
11:20	Authors: Bartosz Czech, Bernt Guldbrandtsen, Joanna Szyda. Title: Patterns of DNA variation between the autosomes, the X chromosome and the Y chromosome in <i>Bos taurus</i> genome.
11:30	Authors: Paulina Dziadkiewicz, Norbert Dojer. Title: Multiple Sequence Alignment Analysis.
11:40	Authors: Aleksandra Suwalska, Yingzhe Wang, Ziyu Yuan, Yanfeng Jiang, Jinhua Chen, Mei Cui, Xingdong Chen, Chen Suo, Joanna Polanska. Title: Cerebral Microbleeds detection on MR images with hybrid neural network.
11:50	Session 8 MSc-s Q&A
12:00	Break
12:10	Session 9 Chair: Paweł P. Łabaj Best PhD Thesis Competitions laureates
12:10	Authors: Aleksandra Badaczewska, Dominik Gront. Title: Modeling the structure and dynamics of proteins using coarse-grained models with different resolution scale.
12:20	Authors: Aleksandra I. Jarmolinska, Joanna I. Sułkowska, Anna Gambin. Title: Algorithms and models for protein structure analysis.
12:30	Authors: Anna Papież, Joanna Polanska. Title: Integrative data analysis methods in multi-omics molecular biology studies for disease of affluence biomarker research.
12:40	Session 9 PhD-s Q&A
12:50	Awards and closing remarks