

# Contents

## Genetic Processing

Generalized Hultman Numbers and the Distribution of Multi-break Distances . . . . .	3
<i>Nikita Alexeev, Anna Pologova, and Max A. Alekseyev</i>	
Implicit Transpositions in Shortest DCJ Scenarios . . . . .	13
<i>Shuai Jiang and Max A. Alekseyev</i>	
Constraint-Based Genetic Compilation . . . . .	25
<i>Christophe Ladroue and Sara Kalvala</i>	

## Molecular Recognition/Prediction

P2RANK: Knowledge-Based Ligand Binding Site Prediction Using Aggregated Local Features . . . . .	41
<i>Radoslav Krivák and David Hoksza</i>	
<i>Stream</i> - A Stream-Based Algorithm for Counting Motifs in Dynamic Graphs . . . . .	53
<i>Benjamin Schiller, Sven Jager, Kay Hamacher, and Thorsten Strufe</i>	
Convolutional LSTM Networks for Subcellular Localization of Proteins . . . .	68
<i>Søren Kaae Sønderby, Casper Kaae Sønderby, Henrik Nielsen, and Ole Winther</i>	

## Phylogenetics

Hybrid Genetic Algorithm and Lasso Test Approach for Inferring Well Supported Phylogenetic Trees Based on Subsets of Chloroplastic Core Genes . . . . .	83
<i>Bassam AlKindy, Christophe Guyeux, Jean-François Couchot, Michel Salomon, Christian Parisod, and Jacques M. Bahi</i>	
Constructing and Employing Tree Alignment Graphs for Phylogenetic Synthesis . . . . .	97
<i>Ruchi Chaudhary, David Fernández-Baca, and J. Gordon Burleigh</i>	
A More Practical Algorithm for the Rooted Triplet Distance. . . . .	109
<i>Jesper Jansson and Ramesh Rajaby</i>	

Likelihood-Based Inference of Phylogenetic Networks from Sequence Data by PhyloDAG . . . . .	126
<i>Quan Nguyen and Teemu Roos</i>	
Constructing Parsimonious Hybridization Networks from Multiple Phylogenetic Trees Using a SAT-Solver. . . . .	141
<i>Vladimir Ulyantsev and Mikhail Melnik</i>	
<b>Author Index</b> . . . . .	155



<http://www.springer.com/978-3-319-21232-6>

Algorithms for Computational Biology  
Second International Conference, AlCoB 2015, Mexico  
City, Mexico, August 4-5, 2015, Proceedings  
Dediu, A.-H.; Hernández-Quiroz, F.; Martín-Vide, C.;  
Rosenblueth, D.A. (Eds.)  
2015, X, 155 p. 49 illus., 2 illus. in color., Softcover  
ISBN: 978-3-319-21232-6