

# Metin Balaban

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## EDUCATION

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2017 – present	<b>Ph.D.</b> Bioinformatics and Systems Biology	UC SAN DIEGO (UCSD), SAN DIEGO, CA, US
	Advisor: Siavash Mirarab. Expected graduation date: Dec. 2021.	
2015 – 2017	<b>M.Sc.</b> Computer Science	EPFL, SWITZERLAND
	GPA: 5.54/6.00. Advisor: Patrick Thiran	
2010 – 2015	<b>B.S</b> Computer Engineering (Valedictorian)	MIDDLE EAST TECHNICAL UNIVERSITY, ANKARA, TURKEY
	GPA: 3.97/4.00	

## SCHOLARSHIPS AND AWARDS

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2020	UCSD Center for Microbiome Innovation Grand Challenge Award (\$67K grant)
2015-2016	EPFL Graduate Research Scholarship
2010-2015	Turkey State Outstanding Academic Success Scholarship

## EXPERIENCE

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Dec 2016 – Jun 2017	<b>Research Intern</b> Swisscom Digital Lab	LAUSANNE, VD, SWITZERLAND
	Thesis: Real-time Traffic Estimation on Highways Using Cellular Data	
Sep 2015 – Dec 2016	<b>Research Scholar</b> Laboratory of Computational Biology and Bioinformatics.	EPFL, SWITZERLAND
	Mentor: Bernard Moret	

## ORAL PRESENTATIONS

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2020	<b>ISMB</b> Phylogenetic double placement of mixed samples	MONTREAL (VIRTUAL), CANADA
2019	<b>RECOMB</b> APPLES: Fast Distance-Based Phylogenetic Placement.	DISTRICT OF COLUMBIA, US
	Won NSF travel fellowship award.	
2018	<b>GLBIO</b> TreeCluster: Clustering biological sequences using phylogenetic trees.	MADISON, WI, US
	Won ISCB travel fellowship award.	

## PUBLICATIONS

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### CONFERENCE & JOURNAL PUBLICATIONS AND PREPRINTS

Metin Balaban, Daniel Roush, Qiyun Zhu, and Siavash Mirarab (2021). “APPLES-2: Faster and More Accurate Distance-based Phylogenetic Placement using Divide and Conquer”. In: *bioRxiv*. DOI: 10.1101/2021.02.14.431150.

Yueyu Jiang, Metin Balaban, Qiyun Zhu, and Siavash Mirarab (2021). “DEPP: Deep Learning Enables Extending Species Trees using Single Genes”. In: *bioRxiv*. DOI: 10.1101/2021.01.22.427808.

Shahab Sarmashghi, Metin Balaban, Eleonora Rachtman, Behrouz Touri, Siavash Mirarab, and Vineet Bafna (2021). “Estimating repeat spectra and genome length from low-coverage genome skims with RESPECT”. In: *bioRxiv*. DOI: 10.1101/2021.01.28.428636.

Eleonora Rachtman, Metin Balaban, Vineet Bafna, and Siavash Mirarab (2020). “The impact of contaminants on the accuracy of genome skimming and the effectiveness of exclusion read filters”. In: *Molecular Ecology Resources* 20.3, pp. 649–661. DOI: <https://doi.org/10.1111/1755-0998.13135>.

Metin Balaban, Niema Moshiri, Uyen Mai, Xingfan Jia, and Siavash Mirarab (Aug. 2019).

“TreeCluster: Clustering biological sequences using phylogenetic trees”. In: *PLOS ONE* 14.8, pp. 1–20. DOI: [10.1371/journal.pone.0221068](https://doi.org/10.1371/journal.pone.0221068).

Metin Balaban, Shahab Sarmashghi, and Siavash Mirarab (Sept. 2019). “APPLES: Scalable Distance-Based Phylogenetic Placement with or without Alignments”. In: *Systematic Biology* 69.3, pp. 566–578. ISSN: 1063-5157. DOI: [10.1093/sysbio/syz063](https://doi.org/10.1093/sysbio/syz063).

Daniel Doerr, Metin Balaban, Pedro Feijão, and Cedric Chauve (2017). “The gene family-free median of three”. In: *Algorithms for Molecular Biology* 12.1, p. 14.

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## TEACHING

2020-2021

**Teaching Assistant** Intro to Computer Engineering

UC SAN DIEGO

2012-2013

**Teaching Assistant** C Programming

MIDDLE EAST TECHNICAL UNIVERSITY

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## SERVICE TO THE SCIENTIFIC COMMUNITY

2020 – present

**Peer reviewer for life-sciences journals**

Briefings in Bioinformatics