

Hua-Ting YAO

Born August 26th, 1994
From Taipei, Taiwan
htyao.gitlab.io

Mobile +33 6 64 87 51 53
E-mail hua-ting.yao@polytechnique.edu
Gitlab <https://gitlab.com/htyao>

EXPERIENCE

- Since 2022 **Post-doc in Bioinformatics**
TBI, University of Vienna, Vienna, Austria
- 2019–2021 **Joint Ph.D. candidate in Computer Science**
Local Decomposition In RNA Structural Design
AMIBio, LIX, École Polytechnique, Palaiseau, France
School of Computer Science, McGill University, Montreal, Canada
Co-supervised by Yann Ponty & Jérôme Waldispühl
- 2018 **Visiting intern**
Gene selection with network based a priori
BCI team at CEA Grenoble, France
Supervised by Laurent Guyon
- 2017–2018 **M2 in Bioinformatics (AMI2B)**
University of Paris-Saclay, Orsay, France
- 2017 **Visiting Intern**
Model-based clustering on Tuberculosis strains during an outbreak
Simom Fraser University, Vancouver, Canada
Co-supervised by Cedric Chauve & Leonid Chindelevitch
- 2014–2018 **Cycle d'ingénieur**
École Polytechnique, Palaiseau, France
Bioinformatics, Computer Science, Math Application
- 2012–2014 **Classe préparatoire aux grandes écoles (CPGE)**
Lycée Louis le Grand, Paris, France.
Mathematic, Physics, Computer Science
- Until 2012 Secondary education in Taiwan.

PUBLICATION

- 2021 [Yao H-T](#), Waldispühl, J., Ponty, Y., & Will, S. Taming Disruptive Base Pairs to Reconcile Positive and Negative Structural Design of RNA. RECOMB 2021 - 25th International Conference on Research in Computational Molecular Biology.
- 2020 Ponty, Y., Hammer, S., [Yao H-T](#), & Will, S. Advanced design of structural RNAs using RNARedPrint. In E. Picardi (Ed.), RNA Bioinformatics.
- 2020 Sarrazin-Gendron, R., [Yao H-T](#), Reinharz, V., Oliver, C. G., Ponty, Y., & Waldispühl, J. Stochastic Sampling of Structural Contexts Improves the Scalability and Accuracy of RNA 3D Modules Identification. RECOMB 2020 - 24th Annual International Conference on Research in Computational Molecular Biology.
- 2019 [Yao H-T](#), Chauve, C., Regnier, M., & Ponty, Y. Exponentially few RNA structures are designable. ACM-BCB 2019 - 10th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics, 289–298.
- 2017 Feijao P, [Yao H-T](#) et al. *MentaLiST - A fast MLST caller for large MLST schemes*. Microbial Genomics. doi:10.1099/mgen.0.000146

TALKS

- Aug 2021 RECOMB'21, Online
- Mar 2021 ALÉA2021 (theoretical computer science, discrete mathematics seminar), Online

Feb 2021 TBI Winterseminar'21, Online
Feb 2020 TBI Winterseminar'20, Bled
Sep 2019 ACM-BCB'19 (bioinformatics conference), Niagara Falls, New York
Nov 2018 International Conference on Systems Biology, Lyon (**Contributed**)

POSTERS

Sep 2019 RiboClub'19, Sherbrooke, Québec

TEACHING EXPERIENCE

2020 Teaching assistant (36h), *INF442 Algorithms data analysis in C++*, École Polytechnique
2020 Teaching assistant (24h), *CSE103 Introduction to Algorithms*, École Polytechnique
Fall 2019 Teaching assistant (80h), *COMP251 Algorithms and Data Structures*, McGill University

CONTRIBUTIONS TO THE SCIENTIFIC COMMUNITY

2020 Review for RECOMB'21
since 2020 Development of RNAPOND, RNA negative design tool using positive design approach
since 2020 Maintenance & deployment of Infrared, A generic C++/Python hybrid library for FPT Boltzmann sampling.
since 2019 Development of BayesPairing 2, RNA 3D modules identification in sequence and alignments

AWARDS AND HONORS

Jan 2018 Project competition Meet-U 2018 (on protein docking) — First Prize
Jan 2011 Taiwan International Science Fair — Fourth Prize in zoology.

SKILLS

Languages Mandarin (native), English (fluent), French (fluent), Korean (basic),
Japanese (basic)
Programming C++, OCaml, Python3, Java, R, Julia
Web Dev HTML, CSS, php, SQL, JavaScript, AngularJS, Django, Ocsigen
Software COQ, SCILAB
Other Git, Linux, L^AT_EX

REFERENCES

- * Yann Ponty – yann.ponty@lix.polytechnique.fr
Research faculty – École Polytechnique – Computer Science Department
- * Jérôme Waldispühl - jeromew@cs.mcgill.ca
Professor – McGill University – School of Computer Science
- * Laurent Guyon – laurent.guyon@cea.fr
Research faculty – CEA – Laboratory of Cancer and Infection
- * Cedric Chauve – cedric.chauve@sfu.ca
Professor – Simon Fraser University – Department of Mathematics