# Sungsik Kong

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Division of Fundamental Mathematical Science

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Professional Experience RIKEN, Wako, Saitama, Japan

2025-Present

Center for Interdisciplinary Theoretical and Mathematical Sciences (iTHEMS) Research Scientist Division of Fundamental Mathematical Science

Brown University, Providence, Rhode Island, USA

2024 - 2025

Institute for Computational and Experimental Research in Mathematics (ICERM)

Postdoctoral fellow in Mathematics

Mentors: Dr. Elizabeth Allman (University of Alaska Fairbanks) for Fall 2024 Semester Dr. Scott Edwards (Harvard University) for Spring 2025 Semester

University of Wisconsin-Madison, Madison, Wisconsin, USA

2023 - 2024

Postdoctoral research associate

Wisconsin Institute for Discovery: State-funded interdisciplinary scientific research institution

Mentor: Dr. Claudia Solís-Lemus

EDUCATION

# The Ohio State University, Columbus, Ohio, USA

2018 - 2022

Ph.D. in Evolution, Ecology, and Organismal Biology (EEOB)

Presidential fellow

2022

Dissertation: Towards the network of life: Phylogenetic networks as a tool to understand complex evolutionary histories

Advisor: Dr. Laura Kubatko (Professor in Statistics and EEOB)

# University of Toronto, Toronto, Ontario, Canada

2013 - 2015

M.Sc. in Ecology and Evolutionary Biology

Thesis: On the use of Median-Joining networks: A philosophical and empirical evaluation of its suitability in evolutionary biology

Advisor: Dr. Robert Murphy

## University of Toronto, Toronto, Ontario, Canada

2006 - 2012

B.Sc. in Ecology and Evolutionary Biology and Zoology

Undergraduate thesis advisors: Dr. Robert Murphy and Dr. Deborah McLennan

Publications

Total number: 22

h-index: 9 [Google scholar]

\*Correspondence; <sup>†</sup>Co-correspondence; <sup>†</sup>Equal contribution

#### Highlights

- [22] Kong S, Solís-Lemus CR, and Tiley GP. (2025) Phylogenetic networks empower speciation biology. *Proc. Natl. Acad. Sci. U.S.A* 122:31 e2410934122 doi:10.1073/pnas.2410934122
- [21] Kong S\*, Swofford DL, and Kubatko LS. (2024) Inference of phylogenetic networks from sequence data using composite likelihood. Systematic Biology 74:1 53–69 doi:10.1093/sysbio/syae054
- [20] Kong S\*, Sánchez-Pacheco SJ, and Murphy RW. (2023) Median-Joining Networks and Bayesian phylogenies often do not tell the same story. *Bulletin of the Society of Systematic Biologists* 2:1 1–13 doi:10.18061/bssb.v2i-1.9625

- [19] Kong S (2022) Digest: Frequent hybridization in *Darevskia* rarely leads to the evolution of asexuality. *Evolution* 76:9 2216–2217 doi:10.1111/evo.14587
- [18] Kong S<sup>†</sup>, Pons JC<sup>†</sup>, Kubatko LS, and Wicke K. (2022) Classes of phylogenetic networks and their mathematical and biological significance. *Journal of Mathematical Biology* 84:47 doi:10.1007/s00285-022-01746-y
- [17] Kong S and Kubatko LS. (2021) Comparative performance of popular methods for hybrid detection using genomic data. Systematic Biology 70:5 891–907 doi:10.1093/sysbio/syaa092
- [16] Sánchez-Pacheco SJ<sup>‡</sup>, **Kong S**<sup>‡</sup>, Pulido-Santacruz P, Murphy RW, and Kubatko L. (2020) Median-joining network analysis of SARS-CoV-2 genomes is neither phylogenetic nor evolutionary. *Proc. Natl. Acad. Sci. U.S.A* 117:23 12518–12519 doi:10.1073/pnas.2007062117
- [15] Kong S<sup>†</sup>, Sánchez-Pacheco S<sup>†</sup>, and Murphy RW. (2016) On the use of Median-Joining Networks in evolutionary biology. *Cladistics* 32: 691–699 doi:10.1111/cla.12147

# Other peer-reviewed journal articles

- [14] Kubatko L, **Kong S**, Webb E, and Chen Z. (2025) The promise of composite likelihood for species-level phylogenomic inference. *Evolutionary Journal of the Linnean Society* kzaf008 doi:10.1093/evolinnean/kzaf008
- [13] Peng J, Kong S, and Kubatko L. (2024) A likelihood ratio test for hybridization under the multispecies coalescent. Bulletin of the Society of Systematic Biologists doi:10.18061/bssb.v3i2.9560
- [12] Fu M, Eimes JA, Kong S, Lamichhaney S, Waldman B (2023) Identification of major histocompatibility complex genotypes associated with resistance to an amphibian emerging infectious disease. *Infection, Genetics and Evolution* 105470 doi:10.1016/j.meegid.2023.105470
- [11] Glon H, Häussermann V, Brewin P, Brickle P, Kong S, Smith M, and Daly M. (2023) There and back again: The unexpected journeys of *Metridium* de Blainville, 1824 between the old oceans and throughout the modern world. *Biological Bulletin* 244:1 doi:10.1086/723800
- [10] Nguyen HQ, Ho P-T, **Kong S**, Bae Y, Pham TH, and Jang Y. (2022) A time-calibrated mitogenomic phylogeny suggests that Korean *Hyalessa fuscata* is a bridge between Chinese and Japanese *H. maculaticollis. Journal of Genetics* 102:9 doi:10.1007/s12041-022-01405-7
- [9] Nguyen HQ, Kim E, Bae Y, Chae S, Ji S, Heo J, Kong S, Nguyen TK, Pham TH, and Jang Y. (2022) An effective method for accurate life-stage delimitation of cicadas. *Journal of Asia-Pacific Entomology* 101952 doi:10.1016/j.aspen.2022.101952
- [8] Glon MG, Broe MB, Crandall KA, Daly M, Kong S, Thoma RF, and Freudenstein JV. (2022) Anchored hybrid enrichment resolves the *Lacunicambarus* (Decapoda: Cambaridae) phylogeny. *Journal of Crustacean Biology* 42:1 ruab073 doi:10.1093/jcbiol/ruab073
- [7] Kim M, Nguyen HQ, Yi Y, Ahn J, Kim YE, Jang S, Kim S, Kong S, and Borzée A. (2020) Policy recommendation on whaling, trade and watching of cetaceans in the Republic of Korea. Biodiversity Journal 11: 255–258 doi:10.31396/Biodiv.Jour.2020.11.1.255.258
- [6] Weiringa JG, Boot MR, Dantas-Queiroz MV, Duckett D, Fonseca EM, Glon H, Hamilton N, Kong S, Lanna FM, Mattingly KZ, Parsons DJ, Smith ML, Stone BW, Thompson C, Zuo L, and Carstens BC. (2020) Does habitat stability structure intraspecific genetic diversity? It's complicated ··· Frontiers in Biogeography e45377 doi:10.21425/F5FBG45377
- [5] Borzée A, Purevdorj Z, Kim YI, Kong S, Choe M, Yi Y, Kim K, Kim A, and Jang Y. (2020) Breeding preferences in the Treefrogs *Dryophytes japonicus* (Hylidae) in Mongolia, the northern limit of their range. *Journal of Natural History* 53: 2685-2698 doi:10.1080/00222933.2019.1704458
- [4] Bae Y, Kong S, Yi Y, Jang Y, and Borzée A. (2019) Additional new type of threat to Hynobius salamander eggs: predation by loaches (Misgurnus sp.) in agricultural wetlands. Animal Biology 69:4 451–461 doi:10.1163/15707563-20191070

- [3] Groffen J, Kong S, Jang Y, and Borzée A. (2019) The invasive American bullfrog (Lithobates catesbeianus) in the Republic of Korea: history and recommendation for population control. Management of Biological Invasions 10:3 517–535 doi:10.3391/mbi.2019.10.3.08
- [2] Borzée A, Kong S, Didinger C, Nguyen HQ, and Jang Y. (2018) A ring-species or a ring of species? Phylogenetic relationship between two treefrog species around the Yellow Sea: Dryophytes suweonensis and D. immaculatus. The Herpetological Journal 28: 160–170
- [1] Kim K, Kong S, Kim YI, Borzée A, Bae Y, and Jang Y. (2018) Japanese hard ticks (Ixodes nipponensis) parasitizing on the endangered leopard cat (Prionaliurus bengalensis euptilura) in the Republic of Korea. Animal Systematics, Evolution and Diversity 34:1 23–26 doi:10.5635/ASED.2018.34.1.0

# Other publications

[1] Borzée A, Nguyen HQ, Ahn J, Kim M, Kim S, Jang S, Kong S, Kim YE, and Yi Y. (2017) Policy recommendation on the negative impact of infrastructure development on the population of endangered Long-Tailed Goral in Oseck-Kkeutchong. Society for Conservation Biology Korean Chapter

#### Submitted (or very close to be submitted)

- [1] Morley L<sup>‡</sup>, Lehmberg E, **Kong S**<sup>‡</sup>. (In Review) Evaluating phylogenetic comparative methods under reticulate evolutionary scenarios
- [2] Fonseca EM, Camurugi F, Magalhães FM, Kong S, Colli GR, Werneck FP, and Carstens BC. (In Revision) Geographic distance, rivers, and historical climate explain genetic structure and differentiation in a widely distributed lizard in South America
- [3] Nguyen HQ, Kong S, Bae Y, Heo J, Kang J, Jang Y. (In Review) Phylogenetic analysis of Korean cicada (Insecta: Hemiptera) species
- [4] Kolbow N, Kong S, and Solís-Lemus CR. (In Preparation) A method for massively scalable phylogenetic network inference. Preprint available at BioRxiv (10.1101/2025.05.05.652278)

Grants and Awards

All in US Dollars unless stated. †Canadian Dollar; ‡Converted from South Korean Won Total amount of funding received up to date  $\approx$ US\$123,000

#### Highlights

| [1]       | ICERM Postdoctoral Fellowship, Brown University [\$71,600]  | 024 - 2025 |
|-----------|---|------------|
| [2]       | The Presidential Fellowship, The Ohio State University [\$36,500]   | 2022       |
| [3]       | Society of Systematic Biologists (SSB) Ad Hoc Funds [\$3,000]   | 2021       |
| [4]       | Society for the Study of Evolution (SSE) Graduate Research Excellence Grant $[\$1, 8\ R.C.\ Lewontin\ Award\ competition$ | 00] 2020   |
| [5]       | University of Toronto Graduate Fellowship 2   | 013-2015   |
| [6]       | E.M. Walker Graduate Award in Biodiversity, University of Toronto $[\$2,\!615\dagger]$                                    | 2014       |
| $	ag{th}$ | er grants   |            |

#### Ot

| [1] | Funding for participation in Algebraic Methods in Phylogenetics Workshop (NSF) | 2024 |
|-----|--|------|
| [2] | UW-Madison Department of Plant Pathology Travel Award [\$500]                  | 2024 |
| [3] | EvolCompGen Best Poster Award, ISMB, ISCB [\$100]                              | 2022 |
| [4] | EEOB Graduate Development Grant, The Ohio State University [Funded]            | 2022 |
| [5] | EEOB Graduate Evolution & Ecology Student Organization (GEES)                  | 2022 |
|     | Career Development Grant, The Ohio State University [\$200]                    |      |

| [6]  | Council of Graduate Students (CGS) Career Development Grant,<br>The Ohio State University [\$350]  | 2022               |
|------|--|--------------------|
| [7]  | EEOB Darwin Talk Society Membership Grant, The Ohio State University [\$70]  | 2021               |
| [8]  | EEOB Graduate Development Grant, The Ohio State University   | 2021               |
| [9]  | Funding for participation in Future of Systematics Workshop,<br>SSB Standalone Meeting (NSF) [\$500]   | 2020               |
| [10] | Funding for participation in Midwest Phylogenetics Workshop (NSF)  | 2019               |
| [11] | EEOB Graduate Development Grant, The Ohio State University   | 2019               |
| [12] | University of Toronto Undergraduate Bursaries [† $\approx$ \$3,000]  | 2010-2012          |
| Invi | ted talks (*Virtual presentation)  |                    |
| [1]  | RIKEN, Wako, Saitama, Japan iTHEMS Biology Seminar   | 2025               |
| [2]  | New Jersey Institute of Technology (NJIT), Newark, NJ, USA<br>Mathematical Biology Seminar   | 2025               |
| [3]  | Rutgers University-Camden, Camden, NJ, USA<br>Biology Seminar Series   | 2025               |
| [4]  | Universidad del Rosario, Bogotá, Colombia [press] Seminario de investigación   | 2024               |
| [5]  | Universidad Nacional de Colombia, Sede La Paz, Cesar, Colombia Guest speaker in undergraduate course L000322: Sistemática aplicada (Applied Sy                             | 2024 $pstematics)$ |
| [6]  | Creighton University, Omaha, NE, USA Department of Mathematics Colloquium Series   | 2024               |
| [7]  | ICERM, Brown University, Providence, RI, USA From Phylogenetics to Phylogenomics: Mathematical and Statistical Challenges in the era of Big Data Workshop                  | 2024               |
| [8]  | ICERM, Brown University, Providence, RI, USA Daily Discovery   | 2024               |
| [9]  | Joint Congress on Evolutionary Biology, Montréal, QC, Canada<br>Networks in Population Genetics and Phylogenetics:<br>Theory, Methods, and Applications Symposium          | 2024               |
| [10] | University of Hawai'i at Mānoa, Honolulu, HI, USA<br>Algebraic Methods in Phylogenetics Workshop, Just-in-time talk  | 2024               |
| [11] | University of Science and Technology of Hanoi,<br>Vietnam Academy of Science and Technology, Hanoi, Vietnam [press]  | 2024               |
| [12] | Sungshin Women's University, Seoul, South Korea  | 2024               |
| [13] | Ewha Womans University, Seoul, South Korea   | 2024               |
| [14] | The International Society for Computational Biology (ISCB),<br>Society for Molecular Biology and Evolution (SMBE)* [video]<br>EvolCompGen webinar series                   | 2023               |
| [15] | Society for Industrial and Applied Mathematics,<br>New York-New Jersey-Pennsylvania Section (SIAM-NNP),<br>NJIT, Newark, NJ, USA<br>Mathematics of Evolution Minisymposium | 2023               |
| [16] | University of Wisconsin-Madison, WI, USA [video]  UW-Madison Fall 2023 Evolution Seminar Series  | 2023               |

Talks and

Presentations

| [17] | 7] University of Wisconsin-Madison, WI, USA<br>UW-Madison Postdoctoral Research Symposium Blitz Talks Competition |            |  |
|------|---|------------|--|
| [18] | Taming the BEAST, Squamish, BC, Canada Squamish BEAST Tamers  | 2023       |  |
| [19] | Botany Meeting, Boise, ID, USA<br>Seeing the Network for the Trees Symposium                                      | 2023       |  |
| [20] | Algorithms and Complexity in Phylogenetics<br>* $[{\rm video}]$   | 2022       |  |
| [21] | Indiana University, Bloomington, IN, USA  | 2022       |  |
| [22] | University of California San Diego, CA, USA*  | 2022       |  |
| [23] | Evolution Meeting, Cleveland, OH, USA<br>SSB Ernst Mayr Award Competition   | 2022       |  |
| [24] | Louisiana State University, Baton Rouge, LA, USA<br>Department of Biological Sciences Seminar                     | 2022       |  |
| [25] | The Korean Association of Biological Sciences, Seoul, South Korea* The Ecological Society of Korea Section        | 2021       |  |
| [26] | Workshop in Mathematical and Computational Biology* [video] $Bioinformatics\ Section$                             | 2021       |  |
| [27] | Misericordia University, Dallas, PA, USA* Biology Seminar Series  | 2021       |  |
| [28] | The Stone Laboratory, Gibraltar Island, OH, USA EEOB 1930 Introduction to Biological Studies-Aquatic Biology      | 2019       |  |
| [29] | Ewha Womans University, Seoul, South Korea<br>Eco-science/Eco-creative Graduate Seminar                           | 2016       |  |
| [30] | Ewha Womans University, Seoul, South Korea<br>Laboratory of Behavior and Ecology Weekly Seminar                   | 2013       |  |
| Addi | itional talks   |            |  |
| [1]  | ICERM, Brown University, Providence, RI, USA Research Seminar   | 2025       |  |
| [2]  | Harvard University, Cambridge, MA, USA Edwards Lab Weekly Lab Meeting   | 2025       |  |
| [3]  | ICERM, Brown University, Providence, RI, USA Grad and Postdoc talk  | 2024       |  |
| [4]  | University of Wisconsin-Madison, WI, USA $Friday@4$   | 2024       |  |
| [5]  | University of Wisconsin-Madison, WI, USA Wisconsin Institute for Discovery Symposium                              | 2023       |  |
| [6]  | Evolution Meeting*  | 2021       |  |
| [7]  | The Ohio State University, Columbus, OH, USA* <i>EEOB Annual Darwin Series</i>                                    | 2021       |  |
| [8]  | The Ohio State University, Columbus, OH, USA Evolution & Ecology Club   | 2019, 2020 |  |
| [9]  | SSB Standalone Meeting, Gainesville, FL, USA  | 2020       |  |
| [10] | Ewha Womans University, Seoul, South Korea  Animal Communication Symposium  | 2017       |  |

# Poster presentations

Academic

EXPERIENCE

| [1]  | Brown University, Providence, RI, USA Brown Postdoctoral Research Symposium  | 2025                              |
|------|--|-----------------------------------|
| [2]  | Intelligent Systems for Molecular Biology (ISMB), ISCB, Madison, W  Best Poster Award Winner   | T, USA 2022                       |
| [3]  | Evolution Meeting, Providence, RI, USA   | 2019                              |
| [4]  | The Korean Association of Biological Sciences, Yong-In, South Korea  | 2017                              |
| [5]  | Korean-American Scientists and Engineers Association (KSEA),<br>Young Generation Technical and Leadership Conference (YGTLC), H                                      | 2014 Jouston, TX, USA             |
| [6]  | University of Toronto, Toronto, ON, Canada<br>Department of Ecology and Evolutionary Biology undergraduate resear  | 2012<br>rch Fair                  |
| Fiel | dwork experience   |                                   |
| [1]  | Indonesia (volunteer)  | 2016                              |
|      | • Javan gibbons' behavioral research at Mount Halimun Salak Nat  | ional Park                        |
| [2]  | Laos (volunteer)   | 2016, 2023                        |
|      | Butterfly taxonomy work at Kuang Si Butterfly Park   |                                   |
| [3]  | Mongolia and China (resulted in publication [5])   | 2016-2017                         |
|      | Molecular and behavioral data collection of frogs and toads  |                                   |
| [4]  | South Korea (resulted in publications [9] and [10])  | 2016-2017                         |
|      | Molecular and behavioral data collection of cicadas and frogs  |                                   |
| [5]  | Greater Toronto Area (GTA; work-study student)   | 2010-2013                         |
|      | • Data collection for urban biodiversity research  |                                   |
| Aca  | demic visit  |                                   |
| [1]  | Universidad Nacional de Colombia Sede La Paz and<br>Universidad del Rosario, Bogota, Colombia<br>Collaborators: Drs. Santiago Sánchez-Pacheco and Paola Pulido-Santa | 2024<br>Visiting scholar<br>acruz |
| [2]  | University of Wisconsin–Madison, WI, USA Wisconsin Institute for Discovery Mentor: Dr. Claudia Solís-Lemus   | 2022<br>Visiting Ph.D. student    |
| [3]  | Louisiana State University, Baton Rouge, LA, USA<br>Department of Biological Sciences<br>Mentor: Dr. Jeremy Brown  | 2022<br>Visiting Ph.D. student    |
| Res  | earch experience   |                                   |
| [1]  | Ewha Womans University, Seoul, South Korea Division of Eco-science Mentors: Drs. Jae Chun Choe and Yikweon Jang  | 2013, 2016–2017<br>Researcher     |
| [2]  | University of Toronto, ON, Canada  | 2011-2013                         |
|      | Faculty of Forestry  | Work-study student &              |
|      | Mentors: Dr. Sandy Smith and Eric Davies   | Biodiversity technician           |

|              | [3] Royal Ontario Museum, Toronto, ON, Canada<br>Centre for Biodiversity and Conservation Biology<br>Mentor: Dr. Robert Murphy  | 2012<br>Student researcher  |
|--------------|---|---|
|              | [4] University of Toronto, ON, Canada<br>Department of Ecology and Evolutionary Biology<br>Mentor: Dr. Deborah McLennan   | $2011-2012\\ Student\ researcher$   |
|              | [5] University of Toronto, ON, Canada  Cities Centre, Department of Geography  Mentor: Dr. Kristian Larsen  | 2010<br>Student data collector  |
| Teaching and | The Ohio State University   |   |
| MENTORING    | Teaching assistant  |   |
| Experience   | [1] EEOB 3310 Evolution   | (Spring, Fall) 2021<br>(Spring, Summer, Fall) 2020<br>(Spring, Fall) 2019 |
|              | [2] EEOB 2520 Human Physiology  | (Summer) 2021   |
|              | $[3]\ EEOB\ 1930$ Introduction to Biological Studies–Aquatic Biology  | (Summer) 2019   |
|              | [4] $BIOL\ 1113$ Energy Transformation and Development  | (Fall) 2018   |
|              | University of Toronto   |   |
|              | Teaching assistant [1] BIO 120 Adaptation and Biodiversity  | (Summer) 2015<br>(Summer) 2014<br>(Fall) 2013                             |
|              | [2] BIO 220 From Genomics to Ecosystems in a Changing World   | (Spring) 2015   |
|              | [3] EEB 362 Macroevolution  | (Fall) 2014   |
|              | [4] EEB 386 Avian Biology   | (Spring) 2014   |
|              | (Co-)supervision of undergraduate and graduate students   |   |
|              | [1] Glen Carlo Aldover (University of Santo Tomas, The Philippine<br>Mentoring through SSB Mentoring Program  | s) 2024–2025  |
|              | [2] Alanna Kong (University of Toronto)  Mentored through University of Toronto Woodsworth Mentorship   | 2021–2022<br>o <i>Program</i>   |
|              | [3] Devansh Pandey (Indian Institute of Technology Kharagpur)  Mentored through Científico Latino  Currently a graduate student at University of Texas at Austin  | 2021–2022   |
|              | [4] McKenna Molnar (The Ohio State University)  Mentored through OSU EEOB Graduate Mentoring Program  | 2020-2021   |
|              | [5] Shelby Jansens and Kimberly Wiles  Co-supervised with Dr. Laura Kubatko through  Mathematical Biosciences Institute Research Experiences for Un  Project title: Detecting shifts in the evolutionary process in SAI |   |
|              | [6] Tulio Soares and Ellen Southam  Co-supervised with Dr. Pedro Bernardo at University of Toronto and Royal Ontario Museum   | 2014-2015   |
|              | [7] Shreeram Senthivasan  Co-supervised with Drs. Pedro Bernardo, Santiago Sánchez-Pac  University of Toronto and Royal Ontario Museum  | 2014 heco, and Robert Murphy at   |

University of Toronto and Royal Ontario Museum

#### International workshops Instructor [1] Methodological Advances in Reticulate Evolution, Botany Meeting, Boise, ID, USA 2023 2023 [2] Squamish BEAST Tamers, Taming the BEAST, Squamish, BC, Canada Teaching assistant (†Lead teaching assistant) [1] Workshop on Molecular Evolution, Woods Hole, MA, USA† 2024, 2025 Instructed Introduction to Computing Laboratory [2] Workshop on Molecular Evolution, Woods Hole, MA, USA 2023 Miscellaneous 2016 [1] Daruma Eco-Farm, Bang Phra, Si Racha District, Chon Buri, Thailand 2009 [2] Cheong-Shim International School English Camp, Ga-Pyeong, South Korea Participation with a role (\*Virtual event) Conference and Workshop [1] Theory, Methods, and Applications of Quantitative Phylogenomics 2024 PARTICIPATION ICERM, Brown University, RI, USA Speaker; and chaired three sessions [2] Joint Congress on Evolutionary Biology, Montréal, QC, Canada 2024 Participated as EvoAllies for safe and inclusive meeting [3] Evolution Meeting, Albuquerque, NM, USA 2023 SSB Mayr Award Abstract Reviewer & SSE Hamilton Award Judge [4] ISMB, ISCB, Madison, WI, USA 2022 Technical Moderator [5] Evolution Meeting, Cleveland, OH, USA 2022 SSB Symposium Co-organizer (with Dr. Md Rejuan Haque) Symposium title: Towards the network of life: Phylogenetic networks as a tool to understand complex evolutionary histories. [6] Evolution Meeting\* 2021 Chair/Moderator in multiple Faux-Live Sessions **Participant** [1] The Final Southeast Center for Mathematics and Biology Symposium 2025 Georgia Institute of Technology, Atlanta, GA, USA [2] Algorithmic Advances and Implementation Challenges: 2024 Developing Practical Tools for Phylogenetic Inference ICERM, Brown University, RI, USA 2024 [3] Current Methods and Open Problems in Mathematical and Statistical Phylogenetics ICERM, Brown University, RI, USA [4] Algebraic Methods in Phylogenetics Workshop, 2024 University of Hawai'i at Mānoa, Honolulu, HI, USA [press] [5] Wisconsin Institute for Discovery Symposium, 2022, 2023 University of Wisconsin-Madison, WI, USA

2023

2022

2021

[6] Midwest Machine Learning Symposium, University of Illinois Chicago, IL, USA

[8] Annual Conference of the Korean Association of Biological Sciences, South Korea\*

[7] Workshop in Mathematical and Computational Biology\*

|                         | [9]  | iEvoBio (Informatics for Phylogenetics, Evolution and Biodiversity), Evolution Meetin   | g* 2021 |
|-------------------------|------|---|---------|
|                         | [10] | Workshop in Mathematical and Computational Biology<br>$\!\!\!^\star$  | 2021    |
|                         | [11] | SMRT Leiden 2021 –Young Investigator Virtual Conference*  | 2021    |
|                         | [12] | Virtual Asilomar 2021, American Society of Naturalists <sup>⋆</sup>   | 2021    |
|                         | [13] | Future of Systematics Workshop at SSB Standalone Meeting,<br>University of Florida, Gainesville, FL, USA  | 2020    |
|                         | [14] | SSB Standalone Meeting, Gainesville, FL, USA  | 2020    |
|                         | [15] | Evolution Meeting, Providence, RI, USA  | 2019    |
|                         | [16] | Midwest Phylogenetics Workshop, Itasca Biological Station,<br>University of Minnesota, MN, USA  | 2019    |
|                         | [17] | Annual Conference of the Korean Association of Biological Sciences,<br>Yong-In, South Korea   | 2017    |
|                         | [18] | Society for Conservation Biology (SCB) Asia Section,<br>Workshop on Conservation policy, Bangkok, Thailand  | 2017    |
|                         | [19] | World Congress of Herpetology, Hangzhou and Tonglu, China   | 2016    |
|                         | [20] | Phylogenomics Symposium and Software School at SSB Standalone Meeting, University of Michigan, Ann Arbor, MI, USA   | 2015    |
| DIVERSITY AND           | [1]  | Postdoc Appreciation Week, ICERM, Brown University, Providence, RI, USA [press]   | 2024    |
| INCLUSION<br>ACTIVITIES | [2]  | International Mixer, Evolution Meeting, Cleveland, OH, USA  | 2022    |
|                         | [3]  | International Mixer, Evolution Meeting* $Moderator$   | 2021    |
|                         | [4]  | Decolonizing Evolution Workshop, Evolution Meeting* $Moderator$   | 2021    |
|                         | [5]  | Transformative Justice within Academia:<br>A radical institutional reflection, The Centre for Criminology and<br>Sociolegal Studies Graduate Student Conference, University of Toronto* | 2021    |
|                         | [6]  | Strategies for Responding to Harassment and Bullying: Improving Workplace Climate, Evolution Community Resources for Early Career Researchers 2020 (ECR $^2$ )*  Moderator              | 2020    |
|                         | [7]  | Fireside ECR Chat, ECR $^{2*}$ Moderator  | 2020    |
| OUTREACH AND<br>SERVICE | [1]  | The Society's Graduate Student Research Awards $Reviewer$   | 2024    |
|                         | [2]  | Junior science café, Morgridge Institute for Research, WI, USA $Scientist$  | 2023    |
|                         | [3]  | EEOB 8894: EEOB Graduate seminar, The Ohio State University Invited Panelist  | 2020    |
|                         | [4]  | Museum of Biological Diversity's open house, The Ohio State University $Volunteer$  | 2019    |
|                         | [5]  | Department of EEOB, The Ohio State University  Graduate studies Committee  202  | 20-2021 |
|                         | [6]  | Department of EEOB, The Ohio State University  Admissions Committee   | 19–2020 |

[7] SCB, South Korean Chapter Communication Officer

Volunteer Biologist

[8] Kuang Si Butterfly Park, Ban Thapene, Luang Prabang District, Laos

2016, 2022

2016 - 2017

## Peer-Review ACTIVITIES

Community Reviewer on the Editorial Board of Evolutionary Systems Biology (specialty section of Frontiers in Systems Biology). Reviewer at Systematic Biology; Molecular Biology and Evolution; Genome Biology and Evolution; Scientific Reports; Molecular Phylogenetics and Evolution; Philosophical Transactions B; Heredity; PLOS Computational Biology; Journal of Mathematical Biology; Bulletin of Mathematical Biology; Applications in Plant Sciences; Evolutionary Journal of the Linnean Society; Infection, Genetics and Evolution; Ecology and Evolution; Zoological Systematics; F1000Research; Functional & Integrative Genomics

ACTIVE Professional **Memberships** 

Society of Systematic Biologists; Society for Study of Evolution; International Society for Computational Biology

SKILLS

Programming: UNIX, R, Python, Julia, HTML, JavaScript Typesetting: LATEX, R Markdown, Jupyter Notebook Languages: English (Fluent), Korean (Native), Japanese (Intermediate)

#### References

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