Curriculum Vitae

Hsin-Hsiung Bill Huang

Department of Statistics and Data Science

College of Science

University of Central Florida

Office: TCII-206

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Education

Ph.D., Statistics with minor in Biostatistics

University of Illinois at Chicago, Chicago, Illinois, May 2014

Dissertation title: Information Extraction for Virus Classification and Robust Dimension Reduction

Advisors: Professor Jie Yang, Ph.D. and Distinguished Professor Stephen S.-T. Yau, Ph.D.

M.S., Statistics

Georgia Institute of Technology, Atlanta, Georgia, August 2011

M.S., Mathematics (advisor: Professor Hung Chen, Ph.D.)

National Taiwan University, Taipei, Taiwan, January 2007

B.A., Economics and B.S., Mathematics

National Taiwan University, Taipei, Taiwan, June 2004

Employment

Associate Professor (The tenure approved by the UCF Board of Trustees on April 23, 2020)

Department of Statistics and Data Science, University of Central Florida, August 2020 – current

Visiting Scholar (the sabbatical from August 2021 to May 2022)

Department of Statistics, Northwestern University, August 2021 – December 2021

Undergraduate Coordinator

Department of Statistics and Data Science, University of Central Florida, August 2020 – August 2021

Associate Chair

Department of Statistics and Data Science, University of Central Florida, August 2019 – August 2020

Assistant Professor

Department of Statistics, University of Central Florida, September 2015 – July 2020

Visiting Assistant Professor

Department of Statistics, University of Central Florida, September 2014 – August 2015

Funding

1. **NIH R01 National Institute of Neurological Disorders and Stroke (NINDS)**

   Time period: 3/1/2024-2/28/2029

   Proposal title: Sensorimotor control of common-goal bimanual coordination

   Role: co-Principal Investigator

   Amount: $1,802,677; Credit: 5%

2. **UCF COS SEED Grant**

   Time period: 02/14/2023-02/13/2024

   Proposal title: Real-time genome comparison approach to biomedical big data

   Role: Principal Investigator

   Amount: $29,882; Credit: 100%

3. **NSF Algorithms for Threat Detection grant**

   Proposal title: ATD: Efficient and Effective Algorithms for Detection of Anomalies in High-dimensional Spatiotemporal Data with Large Amounts of Missing Data

   Role: Principal Investigator

   Time period: 09/01/2023-08/31/2026

   Amount: $ 100,000 with 100% credit

4. **NSF Algorithms for Threat Detection grant (supplement)**

   Proposal title: ATD: Collaborative Research: Real-Time Network Pattern Change Detection

   Time period: 04/15/2023-08/31/2024

   Role: Principal Investigator

   Amount: $9,999; Credit: 100%

5. **National Institutes of Health (NIH), Grant number: 1R01AG054621-01**

   Time period: 09/01/2017 to 05/31/2022

   The total of my portion is $1,494,713 *3.3% = $49,325.529.

   Proposal title: Adaptation of brain and body responses to perturbations during gait in young and older adults,

   Role: **Co-Investigator**

   Hsin-Hsiung Huang, Ph.D., Department of Statistics, College of Science, University of Central Florida

6. **DARPA: SocialSim project. May and June, 2019**

   Principal Investigator: Wingyan Chung, Ph.D. Associate Professor, Institute for

Simulation and Training, University of Central Florida

Role: **Statistician**

For my salary - $6,792.14

For my student support - $7,507.20

7. **NSF Algorithms for Threat Detection (ATD)**

   Proposal title: Collaborative Research: Real Time Network Pattern Changes Detection

   Role: **Lead Principal Investigator**

   Time Period: 09/01/2019-08/31/2023

   Amount: $58,247 with 100% Credit

8. **UCF In-House Grant**

   Time period: 05/01/2016-04/30/2017

   Proposal title: Real-time genome comparison approach to biomedical big data

   Amount: $7,582

   Principal Investigator: **Hsin-Hsiung Huang**, Ph.D., Department of Statistics, College of Science, University of Central Florida Credit: 100%

Honors

1. **NSF ATD Challenge 2021 First Place –** the best prediction of the anomalies in the traffic data with large missing values. *Mentoring students: Qing He and Charles Harrison*
2. **NSF ATD 2022 Challenge First Place for the special topic** – the best ranking the event types of the Global Database of Events, Language and Tone (GDELT) data. *Mentoring students: Hayden Hampton and Jongjin Kim*
3. **NSF ATD 2023 Challenge First Place –** the best prediction of the GDELT data event counts. *Mentoring students: Hayden Hampton and Chandra Kundu*
4. **The outstanding instruction award in the College of Sciences in 2024.**

Travel Award

- UCF College of Sciences Faculty Travel Award in fall 2015, fall and spring 2016, fall 2017, fall 2019, fall 2022, fall 2023, spring 2024.
- The 4th Jagiellonian Symposium on Advances in Particle Physics and Medicine in 2022
- The 6th Workshop on Biostatistics and Bioinformatics Presenter, 2018
- The University of Florida Statistics Winter Workshop in 2018
- International Conference on Statistical Distributions and Applications, September 2016

- The 4th Workshop on Biostatistics and Bioinformatics Presenter, 2015
- Midwest Biopharmaceutical Statistics Workshop Travel Award, 2013, 2014
- Graduate Student Travel Award, University of Illinois at Chicago, 2012, 2013

Scholarship

- Overseas Taiwanese Students Award, Taiwan Government, 2013
  Funding $30,000, Ranked the top 7 among 400 applications.
- Scholarship Kiplinger Fellowship, Georgia Institute of Technology, 2009
- Hu Duen-Fu Top Graduate Student Award, National Taiwan University, 2006
  The Summa Cum Laude of the M.S. students in Mathematics at NTU

Photo Contest Award

- Princess Cruise Photo Contest Award, 2013. The top 1 of the first season

Research Publications

Peer-Reviewed Journals/Books (The first author and corresponding author contribute the most.) *: corresponding author

1. **Huang HH***, F Yu F and T Zhang* (2024) Robust Sufficient Dimension Reduction via -Distance Covariance. Journal of Nonparametric Statistics, 1(16) 1048-5252. DOI: 10.1080/10485252.2024.2313137
2. Zhang W, Ma Z, Ho HH*, Yang S, Habiger JD, **Huang HH**, Huang Y (2024) Multi-omics Integrative Analysis for Incomplete Data Using Weighted p-value Adjustment Approaches. Journal of Agricultural, Biological, and Environmental Statistics. https://doi.org/10.1007/s13253-024-00603-3
3. Chen Z, An L, Kao CM, **Huang HH** (2023) The properties of the positronium lifetime image reconstruction based on maximum likelihood estimation. Bio-Algorithms and Med-Systems 19 (1)
4. **Huang HH**, Yu F, Fan X, and Zhang T (2023) A Framework of Regularized Low-Rank Matrix Models for Regression and Classification. Statistics and Computing 34 (10), https://doi.org/10.1007/s11222-023-10318
5. He Q and **Huang HH** (2023) A Framework of Zero-Inflated Bayesian Negative Binomial Regression Models for Spatiotemporal Data. Journal of Statistical Planning and Inference. Volume 229, 106098, ISSN 0378-3758,
6. **Huang HH** and He Q (2023) Statistical modeling of Peromyscus maniculatus (deer mouse) amounts per trap with spatiotemporal data. Japanese Journal of

Statistics and Data Science. https://doi.org/10.1007/s42081-023-00212-3

7. Chen CW and **Huang HH** (2023) Unsupervised Vessel Trajectory Reconstruction. Front. Appl. Math. Stat. 9, doi: 10.3389/fams.2023.1124091
8. He Q, Harrison CW, and **Huang HH** (2023) Detection of Anomalies in Traffic Flows with Large Amounts of Missing Data. The New England Journal of Statistics in Data Science, 1-11
9. Yu Z, Yang J, and **Huang HH** (2023) Smoothing Regression and Impact Measures for Accidents of Traffic Flows. Journal of Applied Statistics DOI: 10.1080/02664763.2023.2175799
10. **Huang HH** and He Q (2022) Nonlinear regression analysis. International Encyclopedia of Education 4th Edition
11. Harrison CW, He Q, and **Huang HH** (2022) Clustering Gene Expressions Using the Table Invitation Prior Genes 13 (11), 2036
12. Fan CW, Drumheller K, Chen IH, and **Huang HH** (2022) College students' sleep difficulty during COVID-19 and correlated stressors: A large-scale cross-sessional survey study. Sleep Epidemiology 1, 100004
13. **Huang HH** and Yang J (2020) Affine-Transformation Invariant Clustering Models. Journal of Statistical Distributions and Applications 7 (1), 1-24
14. **Huang HH** and Zhang T (2020) Robust discriminant analysis using multi-directional projection pursuit. Pattern Recognition Letters, 138, 651-656.
15. **Huang HH**, Condor A, and Huang HJ. (2020) Classification of EEG Motion Artifact Signals Using Spatial ICA. Statistical Modeling in Biomedical Research: Contemporary Topics and Voices in the Field.
16. Zhu H, **Huang HH**, and Pang S. (2019) Photon allocation strategy in region-of-interest tomographic imaging. IEEE Transactions on Computational Imaging. DOI: 10.1109/TCI.2019.2922477
17. **Huang HH**, Wang Z, and Chung W. (2019) Efficient Parameter Selection for Support Vector Machines. Enterprise Information Systems. doi.org/10.1080/17517575.2019.1592233
18. **Huang HH** and Girimurugan SB. (2019) Discrete Wavelet packet transform based discriminant analysis for genome sequences data. Statistical Applications in Genetics and Molecular Biology. 20180045

19. **Huang HH**, Hao S, Alacorn S, and Yang J. (2018) Comparisons of classification methods for viral genomes and protein families using alignment-free vectorization. Statistical Applications in Genetics and Molecular Biology, 17(4), 20180004.
20. **Huang HH** and Girimurugan SB. (2018) A novel real-time genome comparison method using discrete wavelet transform. Journal of Computational Biology, 25(4), 406-416
21. **Huang HH**, Wang Z, and Chung W. (2017) Efficient parameter selection for SVM: The case of business intelligence categorization, 2017 IEEE International Conference on Intelligence and Security Informatics (ISI) proceeding, 158-160.
22. **Huang HH** and Yu C. (2016) Clustering DNA sequences using the out-place measure with reduced n-gram. Journal of Theoretical Biology, 406, 61-72.
23. **Huang HH**. (2016) Ensemble method of k-mer and natural vector for the phylogenetic analysis of multiple-segmented viruses. Journal of Theoretical Biology, 398, 136-144.
24. Lu AT, Austin E, Bonner A, **Huang HH,** Cantor RM. (2014) Applications of machine learning and data mining methods to detect associations of rare and common variants with complex traits. Genet Epidemiol, 38 Suppl 1:S81-85.
25. **Huang HH**, Yu C, Hernandez T, Zheng H, Yau SC, He RL, Yang J, and Yau SST. (2014) Global Comparison of multiple-segmented Viruses in 12-dimensional Genome Space. Molecular Phylogenetics and Evolution, 81, 29-36.
26. **Huang HH**, Xu T and Yang J. (2014) Comparing logistic regression, support vector machines, and permanental classification methods in predicting hypertension. BMC Proceedings, 8(Suppl 1):S96
27. Yu C, Hernandez T, Zheng H, Yau SC, **Huang HH**, He RL, Yang J, and Yau SST. (2013) Real time classification of Viruses in 12 Dimensions. PLoS One, 8(5): e17293.
28. **Huang HH** and Yeh YR. (2011) Iterative algorithm for robust kernel principal component analysis. Neurocomputing, 74(18), 3921-3930
29. **Huang HH**, Hsiao CK and Huang SY. (2010) Statistics: Nonlinear regression. International Encyclopedia of Education, 3rd Edition, London, Elsevier. 339-346

Technical Reports

1. **Huang HH**, Hsiao CK, Huang SY. (2008) Nonlinear regression analysis. Academia Sinica Technical Report, 2008-8
2. Chen H and **Huang HH**. (2008) Model selection consistency of Cp-LASSO in

linear regression with orthonormal regressors. Academia Sinica Technical Report, 2008-9

R package:

1. MtMBSP: the Mixed-typed Multivariate Bayesian Model with Shrinkage Priors (Mt-MBSP) package: released in 2023, revised in 2024. Authors: Shao-Hsuan Wang, Ray Bai and Hsin-Hsiung Huang
2. TIP: Bayesian Clustering Using the Table Invitation Prior (TIP) package: released in 2022. Authors: Charles Harrison, Qing He and Hsin-Hsiung Huang

Submitted

1. Zhu Z, Sofa H, Kao CM and **Huang HH** (2023) A statistical reconstruction algorithm for positronium lifetime imaging using time-of-flight positron emission tomography.
2. Wang SH, Bai R, and **Huang HH** (2023) Mixed-type Multivariate Bayesian Sparse Variable Selection with Shrinkage Priors.
3. T Lu, C Chen, **Huang HH**, P Kochunov, E Hong, S Chen (2024) Multiple Imputation Method for High-Dimensional Neuroimaging Data.

Teaching Courses (selected since my tenure earned in 2020)

1. STA6714 Data Preparation — Spring 2024
2. STA7348 Bayesian Modeling and Computation — Spring 2024, 23, 21, 20
3. *STA6971 Research for Master's Thesis; advising M.S. student: Amina Issoufou Anaroua* — Spring 2024 and Fall 2023
4. STA4241 Statistical Learning — Fall 2023, 22
5. STA7734 Statistical Asymptotic Theory in Big Data — Fall 2023, 22, 20
6. *STA6908 Independent Study; advising Ph.D. student Randyll Pandohie* — *Fall 2023*
7. *STA6908 Independent Study; advising Ph.D. student Joshua White* — *Fall 2023*
8. *STA6908 Independent Study; advising Ph.D. student- Ifte Khairul Islam* — *Spring 2023*
9. *STA6908 Independent Study; advising Ph.D. student Charles Harrison* — *Fall 2020*
10. STA5505 Categorical Data Methods — Summer 2023, 20
11. STA6223 Conventional Survey Methods — Spring 2023
12. STA4241 Statistical Learning — Fall 2023, 22
13. *STA7919 Doctoral Research; advising Ph.D. candidate Qing He* — *Fall 2020*

14. STA7919 Doctoral Research; advising Ph.D. candidate Md Jibanul Haque Jiban *Spring 2020*

15. STA 5104 - Advanced Computer Processing of Statistical Data Summer 2022, 21

16. STA6704 Data Mining Methodology II Spring 2020

Professional Services

College and Department Committee Chair and Member

1. Department: Instructor/Lecturer Promotion Revision Committee Chair 2023-2024
2. Department: Office Hour Revision Committee Chair 2023-2024
3. Department: Teaching Responsibility Revision Committee Chair 2023-2024
4. Department: AESP, Equitable Workload Policies Revision Committee member 2023-2024
5. Department: P&T/Criteria Revision Committee member
6. College: Research Committee 2023-2025

Mentoring and Supervision: Postdoc, Ph.D. dissertation, candidacy and M.S. thesis committee chair or member

1. Hanqin Cai, Assistant Professor. Assigned as the mentor of Hanqin to help/guide his research and teaching 2023-2024
2. Kexin Ding, Postdoc, supervising her research project 2024
3. Camili Gomez, Ph.D. candidacy committee chair 2024
4. Randyll Pandohie, Ph.D. candidacy committee member 2024
5. Ted Chang, M.S. thesis committee member 2024
6. Amina Issoufou Anaroua, thesis committee chair 2024

Professional Services in Society:

a. Organizing session as session chair for

1. The Eastern North American Region International Biometric Society Meeting ENAR 2024

2. The Institute for Mathematical Statistics – Asia-Pacific Rim Meeting IMS-APRM 2024,

3. The Eastern North American Region International Biometric Society Meeting ENAR 2023,

4. The Weastern North American Region International Biometric Society Meeting WNAR 2022,

5. The International Conference on Statistical Distributions and Applications ICOSDA 2022,

6. The International Chinese Statistical Association – ICSA Applied Statistics Symposium 2023

7. The International Chinese Statistical Association – ICSA Applied Statistics Symposium 2023

8. The American Statistical Association. The Joint Statistical Meetings (JSM) 2023.

b. Panel Member for helping organize programs. Committee member for ICOSDA2019

c. Academic Panel Member 2016 and 2019

1. American Statistical Association Florida Chapter Meeting 2016 and 2019 and 2025
2. The liaison between our department with the ASA Florida Chapter for organizing the ASA FL Chapter Meeting 2025 in our department.

d. Guest Associate Editor of Journal—MDPI Genes's Special Topic: Statistical Methods for Genetic Epidemiology 2023-2024

e. Journal Reviewer

1. Frontiers in Applied Mathematics and Statistics 2022-2023
2. Journal of Applied Statistics 2022-2023
3. Journal of Sequential Analysis 2023
4. Annals of Applied Statistics 2022-2023
5. Computational and Structural Biotechnology Journal 2021
6. Journal of Big Data 2020
7. Journal of Statistical Distributions and Applications 2020
8. Communications in Statistics - Simulation and Computation 2020
9. Annals of Statistics 2024
10. Electronic Journal of Statistics 2023
11. Scientific Report 2024
12. IEEE Transactions on Cybernetics 2023
13. MDPI journals 2023-2024

Selected Invited Presentations Since Promotion to Tenured Associate Professor in 2020

1. **[International and Invited talk]** Oral presentation in July 2024, at the Jagiellonian Symposium at Jagiellonian University in Krakow, Poland.
2. **[International oral presentation]** Invited talk at the Statistics Seminar at the Institute of Statistical Science Academia on June 17th, 2024, in Taipei, Taiwan
3. **[International oral presentation]** The Statistics Seminar in June 2024 at The National Tsing Hua University in Hsinchu, Taiwan.
4. **[Oral presentation]** The Statistics Seminar on April 3rd, 2024, at The University of Illinois

at Chicago in Chicago, Illinois.

5. **[Oral presentation]** The ASA Florida Chapter Annual Meeting Invited Speaker on March 29th, 2024, at The Florida State University.

6. **[Oral presentation] The** 2024 Eastern North American Region International Biometric Society **(**ENAR) 2024 Invited Speaker on March 13th, 2024, at the Marriott Baltimore Waterfront.

7. **[International oral presentation]** The Institute for Mathematical Statistics – Asia-Pacific Rim Meeting 2024 from 4-7 January 2024 at The University of Melbourne's Parkville Campus.
8. **[International oral presentation]** International and invited oral presentation (peer-reviewed) at the 2023 IEEE Nuclear Science Symposium and Medical Imaging Conference, and International Symposium on Room-Temperature Semiconductor X-Ray and Gamma-Ray Detectors (2023 IEEE NSS MIC RTSD) on November 9th, 2023, in Vancouver, Canada.
9. **[International and invited oral presentation]** International and invited oral presentation at the 2023 Ultra-Low-Dose PET Imaging Workshop as part of the 2023 IEEE Nuclear Science Symposium and Medical Imaging Conference, and International Symposium on Room-Temperature Semiconductor X-Ray and Gamma-Ray Detectors (2023 IEEE NSS MIC RTSD) on November 11th, 2023, in Vancouver, Canada
10. **[Invited oral presentation]** Invited Talk. 2023 the Statistics Seminar at the University of Central Florida. Talk Title "High-dimensional Bayesian variable selection and manifold learning for identifying anomalies and important factors in spatial and temporal data" on October 20th, 2023, in Orlando, Florida.

11. **[Invited oral presentation]** Invited Talk. 2023 Statistics Seminar at George Mason University. Talk Title "From algorithms for anomaly detection to spatial and temporal modeling and Bayesian ultra-high dimensional variable selection" on October 13th, 2023, in Fairfax, Virginia.
12. **[Invited oral presentation]** 2023 NSF ATD PI workshop at George Mason University. Talk Title "From algorithms for anomaly detection to spatial and temporal modeling and Bayesian ultra-high dimensional variable selection" on October 11th, 2023, in Fairfax, Virginia.
13. **[Invited oral presentation]** 2023 NSF ATD PI workshop at George Mason University. Talk Title "Geopolitical Event Forecasting: A Quantile-Based Approach Integrating Gaussian Process Regression and Temporal Fusion Transformer", presented by my supervised student—Hayden Hampton on October 11th, 2023, in Fairfax, Virginia.

14. **[International and invited oral presentation]** 2023 Medical Imaging Seminar in the Inselspital at the University of Bern. Talk Title "Geopolitical Event Forecasting: A Quantile-Based Approach Integrating Gaussian Process Regression and Temporal Fusion Transformer", presented by my supervised student—Hayden Hampton on August 15th, 2023, in Bern, Switzerland.
15. **[International organization and oral presentation a topic-contributed talk session]** Organizer and Chair of "High-dimensional variable selection for multivariate responses Bayesian modeling, distributed learning, and manifold learning for sufficient dimension reduction" and present "Bayesian Ultrahigh-dimensional Variable Selection for Mixed-type Multivariate Response Models" on August 10th, 2023, in the 2023 Joint Statistical Meetings (JSM) in Toronto, Canada. https://ww2.aievolution.com/JSMAnnual/index.cfm?do=ev.viewEv&ev=2940
16. **[International oral presentation]** In the session titled "Statistical models for complex brain imaging data" on August 1st, 2023, presented by Hsin-Hsiung Huang with my research titled "Statistical modeling for positronium lifetime image reconstruction using time-of-flight positron emission tomography" at Waseda University, Tokyo, Japan. http://www.cmstatistics.org/EcoSta2023/fullprogramme.php
17. **[Internal oral presentation]** In the session titled "Recent advances in statistical methods and theory" on August 1st, 2023, by Teng Zhang (presenter) and Hsin-Hsiung Huang with our research titled "Robust sufficient dimension reduction and sufficient variable selection via distance covariance" at Waseda University, Tokyo, Japan. http://www.cmstatistics.org/EcoSta2023/fullprogramme.php
18. **[Internal oral presentation]** Oral presentation titled "The properties of the positronium lifetime image reconstruction based on maximum likelihood estimation" on July 14th, 2023 at Department of Advanced Nuclear Medicine Sciences, Institute for Quantum Medical Science, Quantum Science and Technology (QST), Chiba, Japan.
19. **[International research activity]** Joining and giving comments for the positronium lifetime research of the Ph.D. students at the seminar of the Applied Physics at the University of Tokyo on July 14th, 2023.
20. **[International and invited oral presentation]** Oral presentation titled "Bayesian ultrahigh dimensional variable selection for mixed-type multivariate responses and Bayesian regression models for spatiotemporal data" in the International Conference for Statistics and Data Science

(ICSDS) on July 12th, 2023, in Academic Sinica.
https://www3.stat.sinica.edu.tw/2023icsds/program.html

21. **[International and invited oral presentation]** Oral presentation titled "Mixed-type Multivariate Bayesian Sparse Variable Selection with Shrinkage Priors" by Shao-Hsuan Wang (presenter) and Hsin-Hsiung Huang in the International Conference for Statistics and Data Science (ICSDS) on July 12th, 2023, in Academic Sinica.
https://www3.stat.sinica.edu.tw/2023icsds/program.html
22. **[Organization and presentation an invited talk session]** Organizer and Chair of the invited session titled "Ultrahigh-Dimensional Variable Selection for Mixed-Type Responses and Manifold Learning of Low-Rank Matrices" and presentation titled "Mixed-type Multivariate Bayesian Sparse Variable Selection with Shrinkage Priors" by Shao-Hsuan Wang (presenter) and Hsin-Hsiung Huang in the International Chinese Statistical Association Applied Statistics (ICSA) Symposium on June 14th, 2023, at the University of Michigan in Ann Arbor, Michigan.
https://whova.com/embedded/event/liq9OR1DWvIidz%40RYiOf6krtoTze4aulxJWaro-RV4s%3D/?refer=undefined&day=3
23. **[Invited oral presentation]** Oral presentation titled "Mixed-type Multivariate Bayesian Sparse Variable Selection with Shrinkage Priors" by Shao-Hsuan Wang (presenter) and Hsin-Hsiung Huang in the International Chinese Statistical Association Applied Statistics (ICSA) Symposium on June 14th, 2023, at the University of Michigan in Ann Arbor, Michigan.
https://whova.com/embedded/event/liq9OR1DWvIidz%40RYiOf6krtoTze4aulxJWaro-RV4s%3D/?refer=undefined&day=3
24. **[Invited oral presentation]** Oral presentation titled "Mixed-type Multivariate Bayesian Sparse Variable Selection with Shrinkage Priors" by Shao-Hsuan Wang (presenter) and Hsin-Hsiung Huang in the International Chinese Statistical Association Applied Statistics (ICSA) Symposium on June 14th, 2023, at the University of Michigan in Ann Arbor, Michigan.
https://whova.com/embedded/event/liq9OR1DWvIidz%40RYiOf6krtoTze4aulxJWaro-RV4s%3D/?refer=undefined&day=3
25. **[International and invited oral presentation]** Oral presentation titled "Bayesian regression models for spatiotemporal data and ultrahigh dimensional variable selection for mixed-type multivariate responses" on July 6th, 2023 in the seminar of the Department of Applied Mathematics at the National Sun Yat-sen University in Kaohsiung, Taiwan.
https://www.math.nsysu.edu.tw/seminar/111-2.html

26. **[International and invited oral presentation]** Oral presentation titled "The properties of the positronium lifetime image reconstruction based on maximum likelihood estimation" on May 11, 2023 in the conference "Applications of radiation detection techniques in fundamental physics, food control, medicine and biology" from May 8th to 12th at the National Laboratory of Frascati (INFN), Italy. https://agenda.infn.it/event/33977/
27. **[International and invited oral presentation]** Oral presentation titled **"**Mixed-type Multivariate Bayesian Sparse Variable Selection and Spatiotemporal Models", in the international Seminar at the **Institute for Computing Applications "Mauro Picone" of (IAC) of** the National Research Council (CNR) of Italy on May 10th, 2023, in Rome, Italy. https://www.iac.cnr.it/hsin-hsiung-bill-huang-i-seminari-generali-delliac?fbclid=IwAR2zTbEKgecNTR-MIJ1jFiu53pBkiXEoTHxFMe0P93xu2xOi1wQAVjl4_UA
28. **[Invited oral presentation]** Oral presentation titled "Mixed-type Multivariate Bayesian Sparse Variable Selection and Zero-inflated Spatiotemporal Models" in the UMD SPH Dept of Epidemiology and Biostatistics Seminar on May 4th, 2023, at the University of Maryland, College Park.
29. **[Invited oral presentation]** Oral presentation titled "Positronium lifetime image reconstruction, Missingness Imputation for spatiotemporal and neuroimaging data, and Bayesian ultrahigh dimensional variable selection" in the Department of Statistics Colloquium Series on March 27th, 2023, at the Indiana University.
30. **[Oral presentation]** Oral presentation titled "Bayesian Ultrahigh Dimensional Variable Selection for Multivariate Mixed-Type Responses" in the Eastern North American Region (ENAR) 2023 Spring Meeting on March 19th, 2023.
31. **[International and invited oral presentation]** Oral presentation titled "Creative and Critical Thinking for Research Algorithms for Anomaly Detection and Image Reconstruction", in the Seminar at Seikei University on March 17th, 2023, in Tokyo, Japan.
32. **[International and invited oral presentation]** Oral presentation titled "Bayesian methods: ultrahigh dimensional variable selection for generalized linear models and spatiotemporal data modeling", in the Seminar at the Institute of Statistics Mathematics of Japan on March 16th, 2023, in Tokyo, Japan. https://www.ism.ac.jp/events/2023/meeting0316.html
33. **[Invited oral presentation]** Oral presentation titled "Bayesian Ultrahigh Dimensional Variable Selection for Mixed-type Multivariate Generalized Linear Models and Image Reconstruction"

in the Statistics Seminar in the Department of Statistics on March 2nd, 2023, at the University of Florida.

34. **[Invited oral presentation]** Oral presentation titled "Bayesian Ultrahigh Dimensional Variable Selection for Mixed-type Multivariate Generalized Linear Models" in the Statistics Seminar in the Department of Mathematics, Statistics, and Computer Science on November 2nd, 2022, at the University of Illinois at Chicago. https://www.math.uic.edu/persisting_utilities/seminars/view_seminar?id=6992
35. **[Invited oral presentation]** Oral presentation titled "Ultrahigh Dimensional Variable Selection for Bayesian Mixed-type Multivariate Generalized Linear Models" in the Statistics Seminar in the Department of Statistics and Data Science on October 28th, 2022, at the Northwestern University. https://statistics.northwestern.edu/events/past-events.html
36. **[Organization and presentation an invited talk session]** Organizer and Chair of the invited session titled "High-Dimensional Variable Selection and Dimension Reduction" and presentation titled "High-Dimensional Multivariate Time Series Forecasting for National-Level Geopolitical Events" by Hayden Hampton (presenter) and Hsin-Hsiung Huang the 4th International Conference on Statistical Distributions and Applications (ICOSDA 2022) on October 14th, 2022, at the DoubleTree by Hilton Hotel, Huntington, West Virginia.
37. **[International and Invited talk]** Oral presentation titled "A Statistical Reconstruction Algorithm for Positronium Lifetime Imaging Using Time-of-Flight Positron Emission Tomography" on July 11, 2022, at the Jagiellonian Symposium. The symposium took place at Jagiellonian University in Krakow, Poland. https://indico.koza.if.uj.edu.pl/event/7/sessions/41/#20220711
38. **[Organization and presentation an invited talk session]** Organizer and Chair of the invited session titled "New Developments of Bayesian modeling and applications" and presentation titled "Sparse Bayesian Matrix-variate Regression with High-dimensional Binary Response Data" by Hsin-Hsiung Huang the Western North American Region of The International Biometric Society annual meeting (WNAR 2022) on June 15, 2022.
39. **[Invited oral presentation]** Oral presentation titled "Ultra-high Dimensional Bayesian Matrix-variate Logistic Regression Variable Selection" by Shao-Hsuan Wang (presenter) and Hsin-Hsiung Huang the Western North American Region of The International Biometric Society annual meeting (WNAR 2022) on June 15, 2022.
40. **[Invited oral presentation]** Oral presentation titled "Robust Regularized Low-Rank Matrix

Models" by Hsin-Hsiung Huang and Teng Zhang (presenter) the Western North American Region of The International Biometric Society annual meeting (WNAR 2022) on June 15, 2022.

41. **[Invited oral presentation]** 2020 Guest lecture at AdventHealth University, Feb. 9.