BIOSTATISTICS FACULTY

EPIDEMIOLOGY & BIOSTATISTICS DEPARTMENT

Edward Bedrick, PhD
Program Director, Biostatistics
Professor  |  edwardjbedrick@email.arizona.edu

Research interests include Bayesian methods, linear models and regression models
Collaborative research as member of the University of Arizona Statistics Consulting Laboratory (StatLab) and Center for Biomedical Informatics and Biostatistics (CB2)

Melanie Bell, PhD
Professor  |  melaniebell@email.arizona.edu

Methods for handling missing data in longitudinal studies
Design and analysis of clinical trials and cluster randomized trials
Design and analysis of quality of life and other patient reported outcomes
Research methods evaluation
Statistics Graduate Inter-Disciplinary Program, Executive Committee

Dean Billheimer, PhD
Professor  |  dean.billheimer@arizona.edu

Directs the University of Arizona Statistics Consulting Laboratory (StatLab) to collaborate with scientists and physicians to advance discovery and understanding
Develops statistical methods for discovery, measurement, and use of biomarkers
Develops and applies new methods for Bayesian adaptive study design
Develops new statistical methods for compositional data

Paul Hsu, PhD
Professor  |  pchhsu@email.arizona.edu

Directs the Biometry Core of Phase I & II Chemoprevention Consortium
Develops statistical methods for survival data subject to informative censoring
Develops sensitivity analysis approaches for data subject to missing not at random mechanism
Develops statistical models for analyzing colorectal polyp data, which account for misclassification and variable follow-up
Collaborative research in cancer, surgery, native American health care, cardiovascular and nursing

Mel & Enid Zuckerman
College of Public Health
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| **Chengcheng Hu, PhD, MS**  | Professor              | hucc@email.arizona.edu      | Collaborative research in cancer, occupational health, emergency medicine, and pediatrics  
Methodological research in the areas of survival analysis, longitudinal data, high-dimensional data, and measurement error  
Directs the Biostatistics and Study Design Service at the University of Arizona College of Medicine-Phoenix |
| **Shikhar Kumar, PhD**      | Lecturer               | shikhark@email.arizona.edu   | Research interests include agent-based modelling and computational modelling of behavior and social phenomenon, in particular network analyses, and its applications in Public Health research  
Statistician at UAHS, where I am a member of the H3Africa collaborative network, focusing on the study of chronic kidney diseases in sub-Saharan Africa |
| **Denise Roe, DrPH, MS**    | Professor              | droe@email.arizona.edu       | Directs the University of Arizona Cancer Center Biostatistics Shared Resource to collaborate with investigators in the design, conduct and statistical analysis of clinical, prevention, and laboratory studies  
Developing and evaluating statistical methods useful in clinical trials, prevention studies, pharmacokinetics, and longitudinal studies |
| **Xiaoxiao Sun, PhD**       | Assistant Professor    | xiaosun@email.arizona.edu    | Developing theoretically justifiable and computationally efficient methods for complex and big data arising in data-rich areas, such as genomics, social media, and neuroscience  
Methodological research in the areas of nonparametric modeling, computational biology, statistical computing, and big data analytics |
| **Jin Zhou, PhD**           | Associate Professor    | jzhou@email.arizona.edu      | Role of genetic, epigenetic and environmental factors in the development of complex diseases, including cancers  
Methodological development in modeling biological data and hands-on data analysis  
How to appropriately model and take full advantage of the correlation structure of the large-scale genetic dataset and improve computation efficiency  
Building mathematical/statistical models and efficient user-friendly software to better utilize various types of high-throughput data (“big data”) and systematically understand the heterogeneity of complex diseases, therefore to facilitate the evolution into the era of tailored therapy and personalized medicine |