

Curriculum Vitae

Dr. Xiaoling Peng

Position held

Associate Professor, BNU-HKBU United International University (Apr. 2007 -)
Visiting Scholar, Biostatistics Department, University of California, Los Angeles (UCLA) (Jan. 2014-Jan. 2015)
Senior Research Fellow, State Key Lab of Marine Pollution at CityU, Hong Kong (Jul. 2012-Sep. 2012)
Assistant Professor, Shanghai Jiaotong University (Aug. 2006 - Mar. 2007)
Visiting scholar, Croucher Institute for Environmental Sciences, HKBU, Hong Kong (Jun. 2005- Jun. 2006)

Education

Ph.D (Joint Program) Department of Mathematics, HKBU(Mar. 2002 - Apr. 2005),
Ph.D College of Mathematics, Sichuan University (Sep. 2000 - June, 2005),
B.Sc College of Mathematics, Sichuan University (Sep. 1996 - June, 2000)

Research Experience

My research work emphasized on developing and applying multivariate statistical methods to solve various problems in data mining.

Grant applications

- Principal investigator of Guangdong NSFC Research Grant “Variable selection and its fast algorithm in genome-wide association studies” 2018-2021.
- Key investigator of University Innovation and Enhancement Project (2015 广东省“质量工程”高等学校精品教材), funded by Department of Education of Guangdong Province, 2015.
- China Scholarship Council (CSC) funding for oversea visiting scholar, 2014.
- Key investigator of NSFC Research Grant “Image recovery under non-Gaussian noise” 2013-2016.
- Key investigator of the Agriculture, fisheries and Conservation Department of Hong Kong (AFCD) project “Technical Review and Statistical analysis of the Datasets of Waterbird Monitoring Programme for the Deep Bay Area and Baseline Ecological Monitoring Programme for the Mai Po Inner Deep Bay Ramsar Site”, 2012.
- Principal investigator of NSFC Research Grant “Modern statistics in distinguishing TCM fingerprints” 2008.
- Co-investigator of HKEPD Grant “The study of toxic air pollutions in Hong Kong” 2006.
- Team member of NSFC Research Grant “The study of new chemometrical methods of data mining in analytical chemistry” 2003-2005.

Recent Research Interests

- My recent research interests focused on high dimensional data analysis, medical

data analysis and deep learning.

Publications

- [1] **Peng X.L.**, Li G. and Liu Z.Q., (2015) Zero-Inflated Beta Regression for Differential Abundance Analysis with Metagenomics Data. *Journal of computational biology*,23(2), 1-9.
- [2] Leung H.M., Wang Z.W., Ye Z.H., Yung K.L., **Peng X.L.**, Cheung K.C. (2013) Interactions Between Arbuscular Mycorrhizae and Plants in Phytoremediation of Metal-Contaminated Soils: A Review. *Pedosphere* 23, 549-563.
- [3] Wu B., **Peng X.L.** (2012) Mapping Quality of Life with Chernoff Faces in China. *Journal of Shanxi Economic Management Institute (in Chinese)*. 20 (1) 35-39.
- [4] Cheung K.C., Leung H. M., Ma, K. K., **Peng, X. L.** and Zheng J. S. (2012) Assessment on the Biodiversity, Water and Sediment Qualities of Remediated Estuaries in Hong Kong. *International Journal of Environmental Protection*, 2 (3) 1-14.
- [5] Wu S. C., **Peng, X.L.**, Cheung K.C., Liu S.L. and Wong M.H. (2009) Adsorption kinetics of Pb and Cd by two plant growth promoting rhizobacteria. *Bioresource Technology*, 100 (20) 4559-4563.
- [6] Choi M.P.K., Kang Y.H., **Peng, X.L.**, Ng K.W. and Wong M.H. (2009) Stockholm Convention organochlorine pesticides and polycyclic aromatic hydrocarbons in Hong Kong air. *Chemosphere*, 77 (6) 714-719.
- [7] **Peng, X.L.**, Wong, M.H. (2007) Receptor Modeling for analyzing PCDD/F and dioxin like PCB Sources of Hong Kong. *Environmental Modeling and Assessment*, 12 (3) 229-237.
- [8] **Peng, X.L.**, Yin, H., Li, R. and Fang, K.T. (2006) The application of Kriging and empirical Kriging based on the variables selected by SCAD. *Analytica Chimica Acta* 578, 178-185.
- [9] **Peng, X.L.**, Hu, Q.N. and Liang. Y.Z. (2005). Variable selection via nonconcave penalty function in structure-boiling points correlations. *Journal of Molecular Structure: THEOCHEM* 714, 235-242.
- [10] **Peng, X.L.**, Fang, K.T., Liang. Y.Z. and Hu, Q.N. (2004). Impersonality of the Connectivity Index and Recomposition of Topological Indices According to Different Properties. *Molecules* 9, 1089-1099.
- [11] Hu, Q.N., Liang, Y.Z., **Peng, X.L.**, Yin, H. and Fang, K.T. (2004). Structure Interpretation of Topological Index (1) External Factor Variable Connectivity Index. *J. Chem. Inf. Comput. Sci.* 44, 437-446.
- [12] Hu, Q.N., Liang, Y.Z., **Peng, X.L.**, Yin, H. and Zhu L. (2003). Application of Orthogonal Block Variables and Canonical Correlation Analysis in Modeling Pharmacological Activity of Alkaloids from Plant Medicines. *J. Data Sci.* 1(4), 405-423.

Textbook

- [1] Fang K.T. and **Peng X.L.**, Modern Elementary Statistics (in Chinese), China Higher Education Press, 2014.

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