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Date of Birth: April 15th, 1992
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<u>**Undergraduate Studies**</u>:
   B.S., Physics, Renmin University of China, 2014

<u>**Graduate Studies**</u>:
   University of Pennsylvania, 2017 to present
   <u>Thesis Title</u>: "Essays on Group Heterogeneity in Panel Data Models"
   <u>Expected Completion Date</u>: May 2023

   <u>Thesis Committee and References</u>:

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Teaching and Research Fields:
    Econometrics, Machine Learning, Applied Macroeconomics, Climate Econometrics

Teaching Experience:

Fall, 2018	Introductory Macroeconomics, University of Pennsylvania, Recitation Instructor
Spring, 2019	Introductory Macroeconomics, University of Pennsylvania, Recitation Instructor

Research Experience and Other Employment:

2018 - 2022	University of Pennsylvania, Research Assistant for Professor Frank Schorfheide
Summer, 2019	University of Pennsylvania, Research Assistant for Professor Fernando Ferrerira and Joseph Gyourko

Professional Activities:

Referee	Journal of Econometrics, Journal of Applied Econometrics, International Journal of Forecasting, Econometric Reviews
Seminar Presentations	The 2022 North American Summer Meeting of the Econometric Society, the 2022 IAAE Annual Conference, the 42nd International Symposium on Forecasting, the 16th International Symposium on Econometric Theory and Applications, the 2022 Asian Meeting of the Econometric Society, the 2022 Australasia Meeting of the Econometric Society, the NBER-NSF Seminar on Bayesian Inference in Econometrics and Statistics, the 13th Annual SoFiE Conference, the 2021 IAAE Annual Conference

Honors, Scholarships, and Fellowships:

2017 - 2022	University of Pennsylvania Fellowship

Publications:

"On the Aggregation of Probability Assessments: Regularized Mixtures of Predictive Densities for Eurozone Inflation and Real Interest Rates," with F. X. Diebold and M. Shin, *Journal of Econometrics*, forthcoming.

"*When Will Arctic Sea Ice Disappear? Projections of Area, Extent, Thickness, and Volume*"
With F. X. Diebold, P. Goulet Coulombe, M. Göbel, and G. Rudebusch, *Journal of Econometrics*, forthcoming.

"Optimal Combination of Arctic Sea Ice Extent Measures: A Dynamic Factor Modeling Approach," with F. X. Diebold, P. Goulet Coulombe, M. Göbel, and G. Rudebusch, *International Journal of Forecasting*, 37, 1509-1519, 2021.

"Measuring International Uncertainty: the Case of Korea," with M. Shin, M. Zhong, and D. Lee, *Economics Letters*, 162, 22-26, 2018.

Research Papers:

"*Incorporating Prior Knowledge of Latent Group Structure in Panel Data Models*" (Job Market Paper)

The assumption of group heterogeneity has become popular in panel data models. We develop a constrained Bayesian grouped estimator that exploits researchers' prior beliefs on groups in a form of pairwise constraints, indicating whether a pair of units is likely to belong to a same group or different groups. We propose a prior to incorporate the pairwise constraints with varying degrees of confidence. The whole framework is built on the nonparametric Bayesian method, which implicitly specifies a distribution over the group partitions, and so the posterior analysis takes the uncertainty of the latent group structure into account. Monte Carlo experiments reveal that adding prior knowledge yields more accurate estimates of coefficient and scores predictive gains over alternative estimators. We apply our method to two empirical applications. In a first application to forecasting U.S. CPI inflation, we illustrate that prior knowledge of groups improves density forecasts when the data is not entirely informative. A second application revisits the relationship between a

country's income and its democratic transition; we identify heterogeneous income effects on democracy with five distinct groups over ninety countries.

Research Paper(s) in Progress:

"*Bayesian Estimation of Sparsely Heterogeneous Panel Models*," with H. R. Moon and F. Schorfheide.

"*Estimate Nonlinear VARs using Neural Network Models*," with P. Goulet Coulombe.

Languages:
Chinese (native), English (fluent)

Computational Skill:
Proficiency in R, Matlab, and Julia; knowledge in Python and SAS