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<u>**Personal Information:**</u>
Date of Birth: April 15th, 1992
Citizenship: China (F-1 Visa)

<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.

"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.

"*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.
Revise and Resubmit at the Journal of Econometrics

Rapidly diminishing Arctic summer sea ice is a strong signal of the pace of global climate change. We provide point, interval, and density forecasts for four measures of Arctic Sea ice: area, extent, thickness, and volume. Importantly, we enforce the joint constraint that these measures must simultaneously arrive at an ice-free Arctic. We apply this constrained joint forecast procedure to models relating sea ice to atmospheric CO_2 concentration and models relating sea ice directly to time. The resulting ``carbon-trend'' and ``time-trend'' projections are mutually consistent and predict an effectively ice-free summer Arctic Ocean by the mid-2030s with an 80% probability. Moreover, the carbon-trend projections show that global adoption of a lower carbon path would likely delay the arrival of a seasonally ice-free Arctic by only a few years.

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