

June, 2023

**Curriculum Vitae**  
**KALI P. RATH**

**Office Address:** Department of Economics  
3076 Jenkins Nanovic Halls  
University of Notre Dame  
Notre Dame, IN 46556  
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**Email Address:** rath.1@nd.edu

**EMPLOYMENT:**

Associate Professor, Dept. of Economics, Univ. of Notre Dame, 1998–present

Assistant Professor, Dept. of Economics, Univ. of Notre Dame, 1991–1998

**EDUCATION:**

Ph. D., Economics, Johns Hopkins University, 1992

Dissertation: “Essays in Game Theory”

Advisors: M. Ali Khan (Chair), Joseph E. Harrington

M.A., Economics, Johns Hopkins University, 1988

**RESEARCH INTERESTS:**

Game Theory, Mathematical Economics, Micro Theory, Industrial Organization,  
Welfare Economics

**COURSES TAUGHT:**

Graduate: Microeconomic Theory II, Mathematics for Economists I

Undergraduate: Game Theory, Advanced Microeconomic Theory,  
Intermediate Micro Theory, Principles of Microeconomics

## PUBLICATIONS IN JOURNALS:

- “The Nature of Equilibria under Noncollusive Product Design and Collusive Pricing,” *International Game Theory Review*, 24, Article 2150013, 2022.  
(Coauthor: Gongyun Zhao.)
- “On the Insufficiency of Some Conditions for Minimal Product Differentiation,” *Economic Theory Bulletin*, 9, 53–65, 2021. (Coauthor: Gongyun Zhao.)
- “Modeling Large Societies: Why Countable Additivity Is Necessary,” *Journal of Economic Theory*, 189, Article 105102, 2020.  
(Coauthors: M. Ali Khan, Lei Qiao and Yeneng Sun.)
- “On the Equivalence of Large Individualized and Distributionalized Games,” *Theoretical Economics*, 12, 533–554, 2017.  
(Coauthors: M. Ali Khan, Haomiao Yu and Yongchao Zhang.)
- “Strategic Uncertainty and the Ex Post Nash Property in Large Games,” *Theoretical Economics*, 10, 103–129, 2015.  
(Coauthors: M. Ali Khan, Yeneng Sun and Haomiao Yu.)
- “The Shapley-Folkman Theorem and the Range of a Bounded Measure: An Elementary and Unified Treatment,” *Positivity*, 17, 381–394, 2013.  
(Coauthor: M. Ali Khan.)
- “Large Games with a Bio-Social Typology,” *Journal of Economic Theory*, 148, 1122–1149, 2013. (Coauthors: M. Ali Khan, Yeneng Sun and Haomiao Yu.)
- “Large Distributional Games with Traits,” *Economics Letters*, 118, 502–505, 2013.  
(Coauthors: M. Ali Khan, Haomiao Yu and Yongchao Zhang.)
- “On Games with Incomplete Information and the Dvoretzky-Wald-Wolfowitz Theorem with Countable Partitions,” *Journal of Mathematical Economics*, 45, 830–837, 2009. (Coauthor: M. Ali Khan.)
- “The Dvoretzky-Wald-Wolfowitz Theorem and Purification in Atomless Finite-action Games,” *International Journal of Game Theory*, 34, 91–104, 2006.  
(Coauthors: M. Ali Khan and Yeneng Sun.)
- “Price Changes and Some Underlying Aspects of Measurement of Poverty,” *Journal of Quantitative Economics*, Series 2, 2, 25–43, 2004.  
(Coauthor: Manoj K. Panda.)
- “Nonminimal Product Differentiation as a Bargaining Outcome,” *Games and Economic Behavior*, 42, 267–280, 2003. (Coauthor: Gongyun Zhao.)

- “Two Stage Equilibrium and Product Choice with Elastic Demand,” *International Journal of Industrial Organization*, 19, 1441–1455, 2001.  
(Coauthor: Gongyun Zhao.)
- “On a Private Information Game without Pure Strategy Equilibria,” *Journal of Mathematical Economics*, 31, 341–359, 1999.  
(Coauthors: M. Ali Khan and Yeneng Sun.)
- “Stationary and Nonstationary Strategies in Hotelling’s Model of Spatial Competition with Repeated Pricing Decisions,” *International Journal of Game Theory*, 27, 525–537, 1998.
- “Perfect and Proper Equilibria of Large Games,” *Games and Economic Behavior*, 22, 331–342, 1998.
- “On the Existence of Pure Strategy Equilibria in Games with a Continuum of Players,” *Journal of Economic Theory*, 76, 13–46, 1997.  
(Coauthors: M. Ali Khan and Yeneng Sun.)
- “Existence and Upper Hemicontinuity of Equilibrium Distributions of Anonymous Games with Discontinuous Payoffs,” *Journal of Mathematical Economics*, 26, 305–324, 1996.
- “On the Representation of Sets in Finite Measure Spaces,” *Journal of Mathematical Analysis and Applications*, 200, 506–510, 1996.
- “The Nonconvergence of a Class of Measurable Functions,” *Real Analysis Exchange*, 21, 304–307, 1995.
- “The Nonexistence of Symmetric Equilibria in Anonymous Games with Compact Action Spaces,” *Journal of Mathematical Economics*, 24, 331–346, 1995.  
(Coauthors: Yeneng Sun and Shinji Yamashige.)
- “Representation of Finite Action Large Games,” *International Journal of Game Theory*, 24, 23–35, 1995.
- “Some Refinements of Nash Equilibria of Large Games,” *Games and Economic Behavior*, 7, 92–103, 1994.
- “A Direct Proof of the Existence of Pure Strategy Nash Equilibria in Games with a Continuum of Players,” *Economic Theory*, 2, 427–433, 1992.
- “On Non-linear Extensions of the Perron–Frobenius Theorem,” *Journal of Mathematical Economics*, 15, 59–62, 1986.

## **OTHER PUBLICATION:**

“Pure-Strategy Nash Equilibrium Points in Large Non-Anonymous Games,” in T. Parthasarathy et al. (ed:), *Game Theoretical Applications to Economics and Operations Research*, Kluwer Academic Publishers, pp. 113–127, 1997.  
(Coauthors: M. Ali Khan and Yeneng Sun.)

## **UNPUBLISHED MANUSCRIPTS:**

“Weak Convergence of Measures and a Limit Theorem for Correspondences without Closed Graphs,” *Mimeo*, 2023.

[This is an invited contribution to “Mathematical Economics in memory of Professor Tapan Mitra on the occasion of his 75th birthday,” a special issue of the journal *Communications in Optimization Theory*, editors: M. Ali Khan and Alexander Zaslavski.]

“The Perron-Frobenius Theorem under Weak Indecomposability and Weak Monotonicity,” *Mimeo*, 2023.

“Product Differentiation with Elastic Demand and Unit Specific Transportation Cost,” *Mimeo*, 2022. (Coauthor: Giorgi Piriashvili.)

## **CONFERENCE & SEMINAR PRESENTATIONS (Last Ten Years):**

Midwest Economic Theory Conference (at University of Tennessee, Knoxville), April 28-30, 2023.

19th Society for Advancement of Economic Theory Conference, Ischia, Italy, June 30-July 06, 2019.

18th Society for Advancement of Economic Theory Conference, Taipei, Taiwan, June 11-13, 2018.

Workshop on Game Theory, National University of Singapore, Singapore, June 04-08, 2018.

Theory Seminar, Rutgers University, USA, April 2018.

Theory Seminar, Johns Hopkins University, USA, April 2018.

China Meeting of the Econometric Society, Wuhan, China, June 09-11, 2017.

Asian Meeting of the Econometric Society, Hong Kong, June 03-05, 2017.

11th Econometric Society World Congress (ESWC), Montreal, Canada, August 17-21, 2015.

15th Society for Advancement of Economic Theory Conference, Cambridge, England, July 27-31, 2015.

Midwest Economic Theory Conference (at Indiana University Purdue University in Indianapolis), May 30-Jun 01, 2014.

**STUDENT ADVISING:** (Graduate) Dissertation Committee Member, Giorgi Piriashvili, 2022. First position: Post-doc, University of Notre Dame.

(Undergraduate) Over the years, I have directed about ten Senior Honors Essays. Three of these have been awarded the best senior honors essay by the department.

**SERVICE TO THE DEPARTMENT & UNIVERSITY:** Representative of the College of Arts & Letters to the Executive Committee of the Center for Applied Mathematics (CAM), 1999–2004. Department’s Director of Graduate Studies (DGS), 2001–2009. Department’s representative to the Faculty Senate from Fall 2011 to Spring 2014. I have served in many other committees over the years. Currently, I am in the Department Chair’s Advisory Committee.

### **PROFESSIONAL ACTIVITIES:**

Editorial Board: Associate Editor.

- *International Journal of Economic Theory*, from September 2021.
- *Studies in Micro Economics*, from Summer of 2011 to Spring 2016.

Journal Evaluation: In 2022 I was asked by the journal *Mathematics of Operations Research* (MOR) to evaluate its current reputation and provide suggestions for future directions to improve its usefulness, readership and reputation.

Reviewer (Selected Journals): American Economic Review, Econometrica, Economic Theory, Economics Letters, Games and Economic Behavior, International Economic Review, International Journal of Game Theory, International Journal of Industrial Organization, International Review of Economics and Finance, Journal of Economic Theory, Journal of Public Economic Theory, Journal of Mathematical Economics, Mathematical Social Sciences, Mathematics of Operations Research, Rand Journal of Economics, Social Choice and Welfare, Theoretical Economics, Zeitschrift für Nationalökonomie.

National Science Foundation of USA.