

STEFANOS LEONARDOS

Singapore University of Technology & Design
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[personal website]

EMPLOYMENT

- 2018–20 Singapore University of Technology & Design (SUTD)**
· Postdoctoral Research Fellow in “Game Theory and Cryptoeconomics”
- 2019–20 University of Crete**
· Project: European Structural and Investment Funds
· Researcher: “Patent Licensing, Partial Horizontal Ownership and Optimal Taxation Policies”
- 2014–15 University of Athens**
· Project: Excellence II, European Social Fund for Research
· Researcher: “Optimization of stochastic systems under partial information”

EDUCATION

- 2017 PhD in Game Theory** University of Athens
· Excellent. Advisor: As. Prof. C. Melolidakis
- 2013 M.Sc. in Statistics & Operations Research** University of Athens
· Valedictorian 10/10
- 2009 Diplom in Mathematics** Technische Universität Darmstadt
· Distinction 1.0/1.0
- 2004 B.Sc. in Business Administration** Athens University of Economics & Business

RESEARCH & TEACHING INTERESTS

- Research** Game theory: equilibrium concepts, oligopolies, 2-stage games
Blockchains: cryptoeconomics, incentives
Revenue management: pricing, unimodality conditions, comparative statics
Strategic behavior: voting systems, queues
- Teaching** Game Theory, Operations Research, Probability & Statistics

SCHOLARSHIPS & AWARDS

- 2019** · Best Paper Award: IEEE International Conference on Blockchain and Cryptocurrency
· Best Paper Award: 3rd annual Decentralized Conference
· Best Paper Award: International Conference on Mathematical Research for Blockchain Economy
- 2017 Greek Institution of State Scholarships (IKY)**
· Ranked 6th in Natural Sciences: Kindly declined (due to financial reasons)
- 2013–16 Alexander S. Onassis, Public Benefit Foundation**
· Scholarship for doctoral studies
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- 2019-20 SUTD Teaching ESD: Outstanding Teaching Assistant Award 2019-2020**
- 2019 SUTD Research Fest: Best Poster Award**
- 2018 Koç Üniversitesi: Research Visit Fellowship at the College of Engineering
Lake Como School of Advanced Studies**
· Summer School Fellowship: “Game Theory and Voting Systems”
- 2016–17 Special Account for Research Grants, University of Athens**
· Travel grants: Stony Brook (2017), SING12 (2016)
- 2008 Socrates-Erasmus Fellowship, Darmstadt & Athens. Grade: 10/10 (24 ECTS)
Scuola Matematica Interuniversitaria: Summer School Fellowship: “ C_0 -Semigroups”.**

JOURNAL PUBLICATIONS

- [J9] S. Leonardos, C. Melolidakis, *On the Mean Residual Life of Cantor-Type Distributions: Properties and Economic Applications*, **Austrian Journal of Statistics**, to appear (2021). [[arXiv](#)]
- [J8] S. Leonardos, D. Reijsbergen, G. Piliouras, *PREStO: A Systematic Framework for Blockchain Consensus Protocols*, **IEEE Transactions in Engineering Management**, to appear (2020). [[DOI](#)]
- [J7] S. Leonardos & C. Melolidakis, *On the Equilibrium Uniqueness in Cournot Competition with Demand Uncertainty*, **The B.E. Journal of Theoretical Economics**, (2020). [[DOI](#)]
- [J6] V. Buterin, D. Reijsbergen, S. Leonardos & G. Piliouras, *Incentives in Ethereum's Hybrid Casper Protocol*, **International Journal of Network Management**, (2020). [[DOI](#)]
- [J5] S. Leonardos, D. Reijsbergen, G. Piliouras, *Weighted Voting on the Blockchain: Improving Consensus in Proof of Stake Protocols*, **International Journal of Network Management**, (2020). [[DOI](#)]
- [J4] C. Koki, S. Leonardos & G. Piliouras, *Do Cryptocurrency Prices Camouflage Latent Economic Effects? A Bayesian Hidden Markov Approach*, **MDPI Future Internet**, (2020). [[DOI](#)]
- [J3] S. Leonardos & C. Melolidakis, *Endogenizing the cost parameter in Cournot oligopoly*, **International Game Theory Review**, to appear (2020). [[DOI](#)]
- [J2] S. Leonardos & C. Koki, *Coalitions & Voting Power in the Greek Parliament of 2012: A Case-Study*, **Homo Oeconomicus**, (2019). [[DOI](#)]
- [J1] S. Leonardos & C. Melolidakis, *On the commitment value and commitment optimal strategies in bimatrix games*, **International Game Theory Review**, (2018). [[DOI](#)]

CONFERENCE PUBLICATIONS

- [C5] S. Leonardos, I. Sakos, C. Courcoubetis & G. Piliouras, *Catastrophe by Design in Population Games: Destabilizing Wasteful Locked-in Technologies*, [**WINE**] **16th Conference on Web and Internet Economics** (2020). [[arXiv](#)]
- [C4] **Best Paper Award**. C. Koki, S. Leonardos & G. Piliouras, *Do Cryptocurrency Prices Camouflage Latent Economic Effects? A Bayesian Hidden Markov Approach*, **3rd Annual Decentralized Conference – MDPI** (2019). [[DOI](#)]
- [C3] **Best Paper Award**. N. Leonardos, S. Leonardos and G. Piliouras, *Oceanic Games: Centralization Risks and Incentives in Blockchain Mining*, **Conference on Mathematical Research for Blockchain Economy** (2019). [[DOI](#)]
- [C2] **Best Paper Award**. S. Leonardos, D. Reijsbergen, G. Piliouras, *Weighted Voting on the Blockchain: Improving Consensus in Proof of Stake Protocols*, **IEEE International Conference on Blockchain and Cryptocurrency** (2019). [[DOI](#)]
- [C1] V. Buterin, D. Reijsbergen, S. Leonardos & G. Piliouras, *Incentives in Ethereum's Hybrid Casper Protocol*, **IEEE International Conference on Blockchain and Cryptocurrency** (2019). [[DOI](#)]

REFEREED BOOK CHAPTERS

- [B3] S. Leonardos & C. Koki, *Political Indicators in Germany and Greece: Evolving Political Systems, Distinct Paths and a Mutual Future*, **German-Greek Yearbook of Political Economy (invited)**, to appear in Volume 3. [[pdf](#)]
- [B2] C. Koki, S. Leonardos & C. Melolidakis, *Comparative Statics via Stochastic Orderings in a Two-Echelon Market with Upstream Demand Uncertainty*, **AIRO Springer Series**, (2019). [[DOI](#)]
- [B1] C. Koki, S. Leonardos & C. Melolidakis, *Measuring Market Performance with Stochastic Demand: Price of Anarchy and Price of Uncertainty*, **Belief Functions: Theory and Applications**, (2018). [[DOI](#)]

WORKING PAPERS

- Y. Dimitrakopoulos, A. Economou & S. Leonardos, *Strategic customer behavior in a queueing system with alternating information structure*, **European Journal of Operational Research**, r&r. [[arXiv](#)]
- S. Leonardos, C. Melolidakis & C. Koki, *Monopoly Pricing in Vertical Markets with Demand Uncertainty*, submitted. [[arXiv](#)]
- S. Leonardos & C. Melolidakis, *A Class of Distributions for Linear Demand Markets*. [[arXiv](#)]
- C. Koki, S. Leonardos & G. Piliouras, *A Peek into the Unobservable: Hidden States and Stylized Facts for the Bitcoin and Ether Price Series*. [[arXiv](#)]

REVIEWER

- European Journal of Operational Research || IEEE Access || IEEE Transactions in Engineering Management || Frontiers in Blockchain || Conference on Web and Internet Economics (WINE) || Symposium on Algorithmic Game Theory (SAGT) || Applied Stochastic Models in Business and Industry || Greek Mathematical Review
- TCP International Conference on Mathematical Research for Blockchain Economy (MARBLE)

SELECTED TALKS

- 2020** WINE 2020, 16th Conference on Web and Internet Economics (online)
CRC 2020, 3rd Cryptocurrency Research Conference (online)
FOCODILE 2020, part of DisCoTec 2020 (online)
- 2019** MARBLE 2019, International Conference on Mathematical Research on Blockchain Economy
University of Crete, invited talk on “Game Theory and Blockchains”
Decentralized 2019, The Premier Blockchain Conference in Europe
CRETE 2019, International Conference on Research on Economic Theory and Econometrics
IEEE-ICBC, IEEE International Conference on Blockchain and Cryptocurrency, Seoul, South Korea
- 2018** CRETE2018, International Conference on Research on Economic Theory and Econometrics
MCDA 2018, 12th Multicriteria Decision Aid Meeting
OLIGO, Workshop 2018 in Piraeus
- 2017** Stony Brook, Center for Game Theory, 28th International Conference (contributed)
Technion, 9th International Conference of the Israeli Chapter, GTS
SDSU, Jerome J. Lohr College of Engineering (invited)
- 2016** GAMES 2016, 5th World Congress of the Game Theory Society
GTM 2016, 10th International Conference on Game Theory and Management
SING12, 12th European Meeting on Game Theory (contributed)
- 2015** M3ST 2015, International Conference on Modern Mathematical Methods
Excellence II, Part of the European Social Fund Research funding program

TEACHING EXPERIENCE

- 2020** Singapore University of Technology and Design
· Teaching Assistant: ESD - 40.316 Game Theory
- 2010–2018** Arnos, Private Institute for Higher Education
· E-learning: Probability, Statistics, Operations Research
· Instructor: Quality Control, graduate/ undergraduate
- 2012–2014** University of Athens, Department of Mathematics
· Teaching Assistant: Game Theory, Probability I, II
- 2006–2008** TU Darmstadt, Department of Mathematics
· Teaching Assistant: Functional Analysis

CONSULTING – NON ACADEMIC

- 2014–2015** TERN Energy, GEK Terna Group
· Statistical analysis, Matlab in “Eagles and Bats conservation project, Idaho, US”
- 2009** EUREX Clearing AG, Gruppe Deutsche Börse
· Intern: Clearing Business Development
- 2009–2010** Military Service: Rhodos, Greece

LANGUAGES

Greek (native), German (Abitur 1.7), English (Cambridge Certificate of Proficiency in English, IELTS 8.5/9)

COMPUTER SKILLS

- Matlab, LaTeX, Mathematica, Python (intermediate), SPSS, Minitab.
- “Algorithms, a 4-Course Specialization”, by Stanford University on Coursera, 2017. Grade: 100%.
- “Design & Analysis of Algorithms”, graduate course by E. Markakis (AUER), 2018. Grade: 9.5/10.

OTHER

- **Professional Bodies – Societies**

- Game Theory Society

- International Society of Dynamic Games

- American Economics Association

- Italian Association for Mathematics Applied to Economic and Social Sciences

- Hellenic Economic Chamber

- Hellenic Mathematical Society

- Hellenic Operational Research Society

- MENSA Greece

- Alumni Association of the German School of Athens

- **Graduate Student Union, Mathematics Department**, Elected trustee (2011-2013)

- **German School of Athens**, Greek & German graduation (1999): Excellent (19.2/20).

REFERENCES

Georgios Piliouras **Singapore University of Technology and Design**

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