

# CURRICULUM VITAE ET STUDIORUM

DIODATO FERRAIOLI

## PERSONAL DATA

Name: Diodato Ferraioli  
Birth Date: March 7, 1985  
Nationality: Italian  
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## EDUCATION

- Apr. 2012 PhD in Computer Science at  
Università degli Studi di Salerno.  
Advisor: Prof. Vincenzo Auletta.  
Thesis title: “Logit Dynamics for Strategic Games, Mixing Time and Metastability.”
- Oct. 2008 Laurea Specialistica degree (MSc equivalent) in Computer Science at  
Università degli Studi di Salerno.  
Grade: 110/110 *summa cum laude*.  
Advisor: Prof. Vincenzo Auletta.  
Thesis title: “The Job Scheduling Problem with Selfish Agents.”
- Sep. 2006 Laurea degree (Bachelor equivalent) in Computer Science at  
Università degli Studi di Salerno.  
Grade: 110/110 *summa cum laude*.  
Advisor: Prof. Vincenzo Auletta.  
Thesis title: “Design and Implementation of an e-voting system based on web-services.”
- Jul. 2003 High School Diploma at  
Liceo Scientifico “B. Mangino” di Pagani (SA).  
Grade: 100/100.

## OTHER FORMATION EXPERIENCES

Jul. 2011	I have attended the “ <i>Lipari School on Computational Complex Systems: Game Theoretic approach to Computational Complex Systems</i> ” in Lipari (Italy).
Jun. 2011 – Jul. 2011	I have attended the PhD class by Prof. A. Di Crescenzo about “ <i>Stochastic Processes</i> ” at Università degli Studi di Salerno.
Apr. 2011 – Sep. 2011	I have attended the PhD class by Prof. V. Scarano about “ <i>Scalable Computing</i> ” at Università degli Studi di Salerno.
Mar. 2011 – May 2011	I have attended the PhD class by Prof. G. Persiano about “ <i>Introduction to cryptography</i> ” at Università degli Studi di Salerno.
Jul. 2010	I have attended the PhD class by Prof. L. Trevisan about “ <i>Graph Partitioning and Expanders</i> ” at Università degli Studi di Salerno.
Mar. 2010	I have attended the PhD class by Prof. P. Crescenzi about “ <i>The PCP Theorem</i> ” at Università degli Studi di Salerno.
Sep. 2009	I have attended <i>SCAM 2009 The 1st BiCi International PhD School on Computational Advertising and Modelling</i> in Bertinoro (Italy).
Jul. 2009	I have attended the PhD class by Prof. R. Wattenhoffer about “ <i>Ad Hoc and Sensor Networks</i> ” at Università degli Studi di Salerno.
Jun. 2009 – Jul. 2009	I have attended the PhD class by Prof. W. Pedrycz about “ <i>Revisiting Fuzzy Modeling: new trends and challenges</i> ” at Università degli Studi di Salerno.
May 2009	I have attended the “ <i>Joint ARRIVAL/AEOLUS Workshop &amp; School on Large-Scale Optimization: Robustness, Online and Offline Issues</i> ” in Patras (Greece).
Mar. 2009 – Apr. 2009	I have attended the PhD class by Prof. N. Galesi about “ <i>Introduction to proof complexity</i> ” at Università degli Studi di Salerno.
Mar. 2009	I have attended “ <i>BiSS 2009 Bertinoro International Spring School</i> ” in Bertinoro (Italy).
Jul. 2008	I have attended the “ <i>DYNAMO 2008 2nd Training School on Algorithmic Aspects of Dynamic Networks</i> ” in Reykjavik (Iceland).
Apr. 2008	I have attended the “ <i>AEOLUS Spring School on Algorithmic Principles of Selfishness and Mechanism Design</i> ” in Paderborn (Germany).
Sep. 2007	I have attended the “ <i>AEOLUS School on Security of Global Computers: Challenges and Approaches</i> ” in Salerno (Italy).

## WORKING EXPERIENCES

Sep. 2015 – today	Assistant Professor at DIEM, Università degli Studi di Salerno.
Nov. 2014 – Aug. 2015	Assistant Professor at DI, Università degli Studi di Salerno.
Sep. 2013 – Oct. 2014	Post-doc at DIAG, Sapienza Università di Roma.
Sep. 2012 – Aug. 2013	Post-doc at LAMSADE, University of Paris Dauphine.
Oct. 2012 – Aug. 2012	Post-doc at DI, Università degli Studi di Salerno.

## VISITING EXPERIENCES

- Jun. 2016 Visiting researcher at Teesside University, School of Computing.  
Host: Prof. Carmine Ventre.
- Sep. 2015 Visiting researcher at Autonomous University of Barcelona, Quantum Information Group.  
Host: Prof. Andreas Winter.
- Jun. 2014 Visiting researcher at Teesside University, School of Computing.  
Host: Prof. Carmine Ventre.
- Jan. 2014 Visiting researcher at University of Patras, Computer Science Department.  
Host: Prof. Ioannis Caragiannis.
- Nov. 2011 – Dec. 2011 Visiting student at ETH Zürich, Institut f. Theoretische Informatik.  
Host: Prof. Peter Widmayer.
- Nov. 2011 Visiting student at University of Liverpool, Computer Science Department.  
Host: Prof. Paul Goldberg.
- Apr. 2010 – Jul. 2010 Visiting student at University of Patras, Computer Science Department.  
Host: Prof. Christos Kaklamanis.
- Jan. 2009 Visiting student at University of Liverpool, Computer Science Department.  
Host: Prof. Piotr Krysta.

## TEACHING EXPERIENCES

- Jan. 2016 – Feb. 2016 “Computer Science Masterclass - Algorithms”  
(Doctoral Degree in Management and Information Technology)  
Università degli Studi di Salerno.
- Mar. 2016 – Jun 2016 Teaching Assistant for “Social Networks”  
Mar. 2015 – Jun 2015 (Master Degree in Computer Science)  
Università degli Studi di Salerno.  
Prof. Vincenzo Auletta.
- Sep. 2015 – Dec 2015 Co-teacher for “Algorithms and Data Structures”  
(Bachelor Degree in Computer Engineering)  
Università degli Studi di Salerno.
- Sep. 2015 – Dec 2015 “Introduction to Computer Science”  
(Bachelor Degree in Economy and Management)  
Università degli Studi di Salerno.
- Jul. 2015 “Computer Support to Business”  
(Master in Herbal Products)  
Università degli Studi di Salerno.
- Sep. 2013 – Jan. 2014 Teaching Assistant for “Theoretical Computer Science”  
(Master Degree in Engineering of Computer Science)  
Sapienza Università di Roma.  
Prof. Stefano Leonardi.

## GRANTS

- Nov. 2015 Finanziamento Giovani Ricercatori 2015  
Istituto Nazionale di Alta Matematica “Francesco Severi”.
- Jan. 2015 Finanziamento Iniziale per l’Attività di Ricerca  
Università degli Studi di Salerno

## RESEARCH GROUP AFFILIATION

- Oct. 2008 – Aug. 2012 Member of “GAS - Giochi, Algoritmi, Sicurezza” Research Group  
Nov. 2014 – today Università degli Studi di Salerno.
- Jan. 2015 – today Member of GNCS (Gruppo Nazionale per il Calcolo Scientifico)  
Istituto Nazionale di Alta Matematica “Francesco Severi”.
- Sep. 2012 – Aug. 2013 Member of “Optimisation combinatoire, algorithmique, données”  
Research Group  
LAMSADE, University of Paris Dauphine.
- Sep. 2013 – Oct. 2014 Member of “Web Algorithmics and Data Mining” Research Group  
DIAG, Sapienza Università di Roma.

## RESEARCH PROJECT PARTICIPATION

- European Cost 295 DYNAMO;
- EU IST FET Integrated Project AEOLUS (IST-015964);
- EU ICT Project FRONTS (project number 215270, Seventh Framework);
- MIUR PRIN research project COGENT;
- ANR project COCA ANR-09-JCJC-0066-01;
- EU IP project MULTIPLEX 317532;
- MIUR PRIN research project ARS TechnoMedia.

## LANGUAGES

- Italian (mother tongue)
- English (TOEFL certification)

## RESEARCH INTERESTS

- Economics and Computation
- Theory of Computation
- Algorithms and Complexity

## JOURNAL PUBLICATIONS

1. V. Auletta, D. Ferraioli, F. Pasquale, P. Penna, G. Persiano. *Convergence to Equilibrium of Logit Dynamics for Strategic Games*. Algorithmica (2016).
2. D. Ferraioli, P. Penna. *Imperfect Best-Response Mechanisms*. Theory of Computing Systems (2015).
3. V. Auletta, D. Ferraioli, F. Pasquale, P. Penna, G. Persiano. *Logit Dynamics with Concurrent Updates for Local Interaction Potential Games*. Algorithmica (2015).
4. V. Auletta, D. Ferraioli, F. Pasquale, G. Persiano. *Mixing Time and Stationary Expected Social Welfare of Logit Dynamics*. Theory of Computing Systems (2013).
5. D. Ferraioli. *Logit Dynamics: A Model for Bounded Rationality*. SIGecom Exchanges 12(1) (2013).

## BOOK CHAPTERS

1. D. Ferraioli, L. Gourves, S. Moretti, F. Pascual and O. Spanjaard. *Combinatorial Optimization with Competing Agents*. Chapter 21 of “Paradigms of Combinatorial Optimization-2nd Edition: Problems and New Approaches”. V. Th. Paschos (Editor). July 2014, Wiley-ISTE.

## PROCEEDINGS PUBLICATIONS

1. V. Auletta, I. Caragiannis, D. Ferraioli, C. Galdi and G. Persiano. *Generalized Discrete Preference Games*. The 25th International Joint Conference on Artificial Intelligence (IJCAI 2016).
2. D. Ferraioli, P. Serafino and C. Ventre. *What to Verify for Optimal Truthful Mechanisms without Money*. 2016 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2016).
3. M. Adamczyk, A. Borodin, D. Ferraioli, B. De Keijzer and S. Leonardi. *Sequential Posted Price Mechanisms with Correlated Valuations*. The 11th Conference on Web and Internet Economics (WINE 2015).
4. V. Auletta, I. Caragiannis, D. Ferraioli, C. Galdi and G. Persiano. *Minority Becomes Majority in Social Networks*. The 11th Conference on Web and Internet Economics (WINE 2015).
5. D. Ferraioli and C. Ventre. *Metastability of Asymptotically Well-Behaved Potential Games*. 40th International Symposium on Mathematical Foundations of Computer Science (MFCS 2015).
6. A. Anagnostopoulos, D. Ferraioli and S. Leonardi. *Competitive Influence in Social Networks: Convergence, Submodularity, and Competition Effects*. 2015 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2015).
7. D. Ferraioli, C. Ventre and G. Aranyi. *A Mechanism Design Approach to Measure Awareness*. The Twenty-Ninth AAAI Conference on Artificial Intelligence (AAAI 2015).
8. D. Ferraioli, L. Gourves and J. Monnot. *On Regular and Approximately Fair Allocations of Indivisible Goods*. 2014 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2014).
9. D. Ferraioli and P. Penna. *Imperfect Best-response Mechanisms*. Sixth International Symposium on Algorithm Game Theory (SAGT 2013).
10. B. Escoffier, D. Ferraioli, L. Gourves and S. Moretti. *Designing Budget-Balanced Best-Response Mechanisms for Network Coordination Games*. Sixth International Symposium on Algorithm Game Theory (SAGT 2013).
11. V. Auletta, D. Ferraioli, F. Pasquale, P. Penna and G. Persiano. *Logit Dynamics with Concurrent Updates for Local Interaction Games*. 21st European Symposium on Algorithms (ESA 2013).
12. D. Ferraioli, P. W. Goldberg and C. Ventre. *Decentralized Dynamics for Finite Opinion Games*. Fifth International Symposium on Algorithm Game Theory (SAGT 2012).

13. V. Auletta, D. Ferraioli, F. Pasquale and G. Persiano. *Metastability of Logit Dynamics for Coordination Games*. ACM-SIAM Symposium on Discrete Algorithms (SODA 2012).
14. V. Auletta, D. Ferraioli, F. Pasquale, P. Penna and G. Persiano. *Convergence to Equilibrium of Logit Dynamics for Strategic Games*. 23rd Annual ACM Symposium on Parallelism in Algorithms and Architectures (SPAA 2011).
15. V. Auletta, D. Ferraioli, F. Pasquale and G. Persiano. *Mixing Time and Stationary Expected Social Welfare of Logit Dynamics*. Third International Symposium on Algorithm Game Theory (SAGT 2010).
16. D. Ferraioli, C. Ventre. *On the Price of Anarchy of Restricted Job Scheduling Games*. 11th Italian Conference on Theoretical Computer Science (ICTCS 2009).

#### POSTERS

1. V. Auletta, I. Caragiannis, D. Ferraioli, C. Galdi and G. Persiano. *Generalized Discrete Preference Games*. The 25th International Joint Conference on Artificial Intelligence (IJCAI 2016).
2. D. Ferraioli and C. Ventre. *Metastability of Asymptotically Well-Behaved Potential Games*. Highlights on Algorithms (HALG 2016).
3. V. Auletta, I. Caragiannis, D. Ferraioli, C. Galdi and G. Persiano. *Discrete Preference Games in Heterogeneous Social Networks: Subverted Majorities and the Swing Player*. Highlights on Algorithms (HALG 2016).
4. V. Auletta, D. Ferraioli, A. Rai, G. Scarpa and A. Winter. *Belief Invariance: Nonsignalling Equilibria in Games with Conflicting Interest*. The 19th Conference on Quantum Information Processing (QIP 2016).
5. V. Auletta, D. Ferraioli, A. Rai, G. Scarpa and A. Winter. *Belief Invariance: Nonsignalling Equilibria in Games with Conflicting Interest*. The 11th Conference on Web and Internet Economics (WINE 2015).
6. A. Anagnostopoulos, D. Ferraioli and S. Leonardi. *Competitive Influence in Social Networks: Convergence, Submodularity, and Competition Effects*. 2015 International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2015).
7. B. Escoffier, D. Ferraioli, L. Gourves and S. Moretti. *Designing Frugal Best-Response Mechanisms for Social Network Coordination Games*. 14th ACM Conference on Electronic Commerce (EC 2013).
8. V. Auletta, D. Ferraioli, F. Pasquale, P. Penna and G. Persiano. *Logit dynamics for strategic games*. 43rd ACM Symposium on Theory of Computing (STOC 2011).

#### HELD TALK

- *Metastability of Asymptotically Well-Behaved Potential Games* at GAMES 2016. Maastricht (The Netherlands). July 2016.

- *Generalized Discrete Preference Games* at IJCAI 2016. New York (USA). July 2016.
- *Discrete Preference Games in Heterogeneous Social Networks: Subverted Majorities and the Swing Player* at AGT@IJCAI2016. New York (USA). July 2016.
- *Logit Dynamics: a model for bounded rationality* at Workshop “Advances in decision making”. Milan (Italy). February 2016.
- *Minority Becomes Majority in Social Networks* at WINE 2015. Amsterdam (The Netherlands). December 2016.
- *Logit Dynamics for Local Interaction Games* at the Quantum Information Group of Autonomous University of Barcelona. Barcelona (Spain). September 2015.
- *Metastability of Asymptotically Well-Behaved Potential Games* at MFCS 2015. Milan (Italy). August 2015.
- *A Mechanism Design Approach to Measure Awareness* at AAAI 2015. Austin (USA). February 2015.
- *Logit Dynamics for Local Interaction Games* at School of Computing at Teesside University. Middlesbrough (England). June 2014.
- *Logit Dynamics for Local Interaction Games* at meeting “Processi Stocastici su Grafi”. Roma (Italy). April 2014.
- *Imperfect Best-Response Mechanisms* at SAGT 2013. Aachen (Germany). October 2013.
- *Designing Budget-Balanced Best-Response Mechanisms for Network Coordination Games* at SAGT 2013. Aachen (Germany). October 2013.
- *Designing Frugal Best-Response Mechanisms for Social Network Coordination Games* at Final Workshop “Games, algorithms and optimization”. Paris (France). June 2013.
- *Logit Dynamics for Strategic Games: Mixing time and Metastability* at LAMSADE at University of Paris Dauphine (France). November 2012.
- *Logit Dynamics for Strategic Games: Mixing time and Metastability* at Dipartimento di Informatica at Università degli Studi di Salerno (Italy). Thesis dissertation. April 2012.
- *Metastability of Logit Dynamics for Coordination Games* at SODA 2012. Kyoto (Japan). January 2012.
- *Logit Dynamics for Strategic Games: Mixing time and Metastability* at Institut f. Theoretische Informatik at ETH Zürich (Switzerland). November 2011.
- *Logit Dynamics for Strategic Games: Mixing time and Metastability* at Computer Science Department at University of Liverpool (England). November 2011.
- *Metastability of Logit Dynamics for Coordination Games* at 4th PRIN COGENT meeting. Fisciano (Italy). September 2011.
- *Convergence to Equilibrium of Logit Dynamics for Strategic Games* at Mini-symposium “Stochastic Models”. Fisciano (Italy). September 2011.



- *Convergence to Equilibrium of Logit Dynamics for Strategic Games* at Lipari School on Computational Complex Systems. Lipari (Italy). July 2011.
- *Convergence to Equilibrium of Logit Dynamics for Strategic Games* at SPAA 2011. San Jose (USA). June 2011.
- *Logit dynamics: Mixing time and Metastability* at 2nd PRIN COGENT meeting. Pisa (Italy). November 2010.
- *Mixing Time and Stationary Expected Social Welfare of Logit Dynamics* at SAGT 2010. Athens (Greece). October 2010.
- *On the Price of Anarchy of Restricted Job Scheduling Games* at ICTCS 2009. Cremona (Italy). September 2009.
- *Worst-case Equilibria for Selfish Restricted Job Scheduling* at Computer Science Department at University of Liverpool (England). January 2009.

#### PROGRAM COMMITTEE

- IJCAI-2015. Buenos Aires (Argentina). July 2015.
- AGT@IJCAI-2015. Buenos Aires (Argentina). July 2015.
- AGT@IJCAI-2016. New York (USA). July 2016.

#### ORGANIZING COMMITTEE

- Fourth Symposium on Algorithm Game Theory (SAGT) 2011. Amalfi (Italy). October 2011.
- Final Workshop “Games, algorithms and optimization”. Paris (France). June 2013.

#### REVIEWS

**Journal:** Discrete Applied Mathematics, Theoretical Computer Science, Journal of Global Optimization.

**Conference:** SAGT 2009, WAOA 2009, ICALP 2011, SAGT 2011, WAOA 2011, WINE 2011, EC 2012, SPAA 2012, MFCS 2012, SAGT 2012, WAOA 2012, CIAC 2013, SPAA 2013, WINE 2013, STACS 2014, FUN 2014, EC 2014, SAGT 2014, ITCS 2014, SODA 2015, ICALP 2015, ICTCS 2015, WINE 2015, ICALP 2016, ESA 2016, SAGT 2016, WINE 2016.

August 27, 2016

Diodato Ferraioli

