David Sarne

Curriculum Vitae

Computer Science Department
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Research Interests

I am interested in the computational mechanisms that underly intelligent user interaction, and how they fit together in an intelligent agent. In particular, I am interested in the role information plays in such interactions, and how the (intelligent) disclosure of such information influences the effectiveness of and user satisfaction from the interaction. My research emphasizes both theory and experiments with people.

Keywords: Artificial intelligence; intelligent user interfaces; information providing in multiagent systems; game theory; mechanism design; contest design, electronic commerce; ad hoc networks;

Education

Ph.D., Computer Science *(Highest distinction)*, 2006
Bar-Ilan University. Advisor: Professor Sarit Kraus.

M.Sc., Information Systems *(Summa cum laude)*, 2001
Tel-Aviv University. Advisors: Professor Abraham Grosfeld-Nir and Professor Israel Spiegler.

B.Sc., Industrial Engineering *(Cum laude)*, 1994
Tel-Aviv University

Positions

Associate Professor, Computer Science department 2013-now
Bar-Ilan University (Department Vice-Chair, 2020-now)

Senior Lecturer, Computer Science department, 2007-2013
Bar-Ilan University

Post Doc Fellow, School of Engineering and Applied Sciences, Harvard University. 2005-2007
Supervisor: Professor Barbara Grosz

Teaching Experience

Lecturer: Intelligent Interfaces, Operating Systems, Decision making in Dynamic Environments, Introduction to Search Theory, Autonomous Agents in eCommerce, Mechanism Design, Game Theory

Teaching assistant in courses: Introduction to Communication Networks, Operational Research, Linear Models, Production Planning and Management, Software Structure.

Industry Experience

Radcom LTD. – Product Manager – 2001-2003
Responsible for the development, marketing and implementation of a distributed platform for Voice Quality Management in VoIP and hybrid networks

Aspear – Product Manager and System analyst – 2000-2001
Responsible for the trading arena and autonomous agents components in the main B2B platform

IDF – Planning Directorate – Project Manager 1997-2000
Responsible for the development of TPS and ES modules for the integrated management of the human resource and means of the IDF

IDF – Head of the general steering committee 1999
for computerizing the IDF professional specifications into intranet environments

IDF – Planning Directorate – Section Head 1995-1997
Responsible for the evaluation of major technological systems and projects that requires the approval of the General Staff

IDF – Planning Directorate - professional officer 1994-1995

Army

Reserve rank: *major* (Army Intelligence), retired.

Service

Chair of BISFAI'11 and BISFAI'15, Co-Chair of AMEC'09, MIMS'09, Fifth Americas School on Agents and Multiagent Systems (2006)

Associate Editor in Annals of Mathematics and Artificial Intelligence (2015 and on).

PC Member – AAMAS06, AAMAS07, AAMAS08, AMMA09, AGS09, IJCAI09, PRIMA09, AAAI08, EUMAS09, AGS10, RREM11, AGS11, AMEC11, AAMAS13, AGS12, AGS13, CAVE13, IJCAI13, AMEC13, AAMAS14, AAAI14, AMEC14, AMEC15, CAVE15, EC16, MATES16, AMEC16, AMEC17, MATES17, IJCAI17, ISAIM18, ISAIM19, ISAIM20, AAMAS21, AAMAS22

SPC – AAMAS15, AAAI15 (Integrated Systems Track), IJCAI15, AAAI16, ECAI16, AAMAS17, IJCAI18, AAAI19, AAAI20, AAMAS20

Track chair – AAMAS19 (Socially interactive agents); IJCAI19 (Workshops), HCOMP21 (Doctoral consortium), DAI21 (Industry)

Reviewing: AI Communications, JAAMAS, TOIT, NSF, DSS, ISF, BSF, AIJ, JAIR, ACII, AMAI, ESA, IEEE Transactions on Services Computing, MOST, TOIT, TSIPN

Mentoring: AAAI 2013 Doctoral Consortium

Students

Current:

Chen Rozenshtein (PhD)

Yuval Dishi (Masters)

Lidor Elias (Masters)

Reut Asraf (Masters)

Ziv Ben David (Masters)

Eden Shuker (Masters)

Idan Toker (Masters)

Moshe Hanukoglu (Masters)

Noam Simon (Masters)

Tehila Wald (Masters)

Alumni

Dr. Simon Shamoun (PostDoc) – Route acquisition in dynamic ad-hoc networks (2013)

Priel Levy (PhD) - Optimal Contest Design for Multi-Agent Systems (2019)

Eran Shaham (PhD, co-advisor: Boaz Ben Moshe) – Mining Co-clustering of Lagged Data (2014)

Igor Rochlin (PhD) – Information sharing in multi-agent cooperation with self-interested agents (2015)

Avshalom Elmalech (PhD) - Overcoming people's irrationality using agents (2016)

Chen Hajaj (PhD, co-advisor: Avinatan Hassidim) - Intelligent mechanisms and modern markets platforms (2016)

Shani Alkobi (PhD) – Information Providers and Value of Information in multi-agent systems (2017)

Itai Nahum (Masters) – The “snow plough” problem (2010)

Uri Goren (Masters) – Repeated Pandora’s problem with memory (2011)

Shai Shlomai (Masters, co-advisor: Sarit Kraus) - FAR- a new Fusion Along Routing method (2011)

Avshalom Elmalech (Masters) - Restructuring decisions to improve agent search (2011)

Gal Miller (Masters) – Combined ERS and BERS route discovery (2013)

Shani Alkobi (Masters, co-advisor: Esther David) – On the choice of obtaining and disclosing the common value in auctions (2013)

Israel Sofer (Masters, co-advisor: Avinatan Hassidim) - Negotiation in exploration-based environment (2013)

Nadav Sofi (Masters) - Effective deadlock resolution with self-interested partially-rational agents (2013)

Shahar Kosti (Masters, co-advisor: Gal Kaminka) - Intelligent user interface for multi-robot search (2013)

Lea Peretz (Masters) - Advanced service schemes for a self-Interested information platform (2014)

Moshe Mash (Masters) - Joint search with self-interested agents and the failure of cooperation enhancers (2014)

Priel Levy (Masters) – Intelligent advice provisioning for collaborative settings (2015)

Luba Golosman (Masters) – Efficiency and fairness in multi-agent cooperation (2016)

Guy Cohen (Masters) – Timing Rating Requests (2019)

Nadav Lisovtsev (Masters) – Building Trust in Iterative Advising (2019)

Michal Habani (Masters) – Minimizing number of interactions with information brokers (2019)

Michael Lipushkin (Masters) – Multi-prize contest design (2019)

Yoav Wizhendler (Masters) - A Preference Prediction for Equivalent Multi-Stage Lotteries (2020)

Ido Nimni (Masters) - Effective Operator Summaries Extraction (2020)

Nir Machlev (Masters) - Crowdworkers Performance as Human-Sensors for Robot Navigation (2020)

Michael Gershtein (Masters) - Approval voting with costly information (2020)

Alon Stern (Masters, co-advisor: Sarit Kraus) - A Negotiating Strategy for a Hybrid Goal Function in Multilateral Negotiation (2020)

Or Zipori (Masters) - Strategic Recommendation in Short-Horizon MABs (2021)

Honors and Awards

Unbox-Wolfson Patient Experience Challenge – First place winner (with Vardit Fleischmann and Liat Ayalon)

J.P. Morgan Faculty Research Award

Best Student Paper Award – AAMAS 2014

Bar-Ilan's “Best Lecturer” prize for excellence in teaching.

Postdoctoral Fellowship (School of Engineering and Applied Sciences, Harvard University)

President’s Postdoctoral Fellowship (Bar-Ilan University)

The Knesset (Israel's Parliament) certificate of appreciation for excellent students

Rector’s prize for excellence in studies (Bar-Ilan University)

Wolf Foundation award

Dean's award for excellence in studies (Tel-Aviv University)

Blieman system award (Tel-Aviv University)

Award of distinction, Planning Directorate, IDF

Research Grants

2021 - Collaborative Multi-Agent Learning in Communication-Limited Environments and Applications (with Amir Leshem), DSI Bar-Ilan, NIS 40,000

2020 - Summarizing Agent Behavior to People (with Ofra Amir and Finale Doshi-Velez), JP Morgan, $105,000

2019-2022 - Attention Modeling and Intelligent Virtual Pacers – Facilitating Crowdworkers' throughput for supporting AI-Based Systems, MOST, NIS 600,000

2017-2021 - Strategic Information Providing, ISF, NIS 940,000

2015-2018 - Information Brokers in Multi-Agent Systems and Mechanism Design (with Pingzhong Tang), ISF-NSFC, NIS 1,000,000

2013-2016 – Joint Exploration of Self-Interested Agents (with Y. Aumann), ISF, NIS 960,000

2009-2012 – Equilibria in Shopping-Agent Mediated Marketplaces (with S. Das), BSF, $104,000

2009-2011 –Partnering Mechanisms in Costly MAS Environments (with Y. Aumann), ISF, NIS 610,000

2009-2011 – Energy efficient routing in sensor networks, Pearls of Wisdom (with S. Kraus), NIS 300,000

2008-2013 - Intelligent Routing in Dynamic Fast-Paced Networks (with S. Kraus), MAGNET: RESCUE, NIS 1,500,000

2008-2009 - Dynamic distributed tuning in 4G networks using cooperative negotiations (with S. Kraus), MAGNET: REMON, NIS 204,000

Patent

David Sarne, Chen Hajaj and Noam Hazon: Selective options disclosure method for affecting a user’s decision-making, (provisional)

Gal Kaminka, David Sarne, Shahar Kosti, Location-Based Image Retrieval, US10025798B2

David Sarne *Publications*

Books

1. E. David, E. Gerding, D. Sarne, and O. Shehory, editors, Agent-Mediated Electronic Commerce: Designing Trading Strategies and Mechanisms for Electronic Markets, Springer-Verlag, LNBIP 59, 2010.
2. A. El Fallah Seghrouchni and D. Sarne, editors, IJCAI 2019 International Workshops Revised Selected Best Papers, Springer-Verlag, LNBIP 12158, 2020.

Journal Papers

1. David Sarne, Sarit Kraus, Managing Parallel Inquiries in Agents' Two-Sided Search. Artificial Intelligence, 172:541–569, 2008
2. Efrat Manisterski, David Sarne, Sarit Kraus, Cooperative Search with Concurrent Interactions. Journal of Artificial Intelligence Research 32:1-36, 2008
3. Abraham Grosfeld-Nir, David Sarne, Israel Spiegler, Modeling the Search for the Least Costly Opportunity. European Journal of Operational Research, 197:667–674, 2009
4. David Sarne, Efrat Manisterski, Sarit Kraus: Multi-goal economic search using dynamic search structures. Autonomous Agents and Multi-Agent Systems 21(2): 204-236, 2010
5. Eran Shaham, David Sarne, Boaz Ben-Moshe. "Sleeved Co-clustering of Lagged Data". Knowledge and Information Systems, 31(2): 251-279, 2012
6. Tal Avinadav, David Sarne, Sequencing counts: A combined approach for sequencing and selecting costly unreliable off-line inspections. Computers & Operations Research 39(11): 2488-2499, 2012
7. Michal Chalamish, David Sarne and Raz Lin. The Effectiveness of Peer-Designed Agents in Agent-Based Simulations. Multiagent and Grid Systems 8(4): 349-372, 2012
8. Michal Chalamish, David Sarne and Raz Lin. Enhancing Parking Simulations using Peer Designed Agents. IEEE Transactions on Intelligent Transportation Systems, 14(1):492-498, 2013
9. David Sarne, Barbara Grosz. Determining the Value of Information for Collaborative Multi-Agent Planning. Autonomous Agents and Multi-Agent Systems 26(3): 456-496, 2013
10. David Sarne. Competitive Shopbots-Mediated Markets. ACM Transactions on Economics and Computation 1(3): 17, 2013
11. Noam Hazon, Yonatan Aumann, Sarit Kraus and David Sarne. Physical Search Problems with Probabilistic Knowledge. *Artificial Intelligence*, 196:26-52, 2013

12. Simon Shamoun and David Sarne, Increasing Threshold Search for Best-Valued Agents, Artificial Intelligence, 199-200: 1-21 (2013)
13. Igor Rochlin, David Sarne and Gil Zussman, Sequential Multi-Agent Exploration for a Common Goal, Web Intelligence and Agent Systems 11(3):221–244 (2013)
14. Avshalom Elmalech and David Sarne, Evaluating the Applicability of Peer-Designed Agents for Mechanism Evaluation, Web Intelligence and Agent Systems 12(2):171-191 (2014)
15. Meenal Chhabra, Sanmay Das and David Sarne: Expert-Mediated Sequential Search, European Journal of Operational Research. 234(3): 861-873 (2014)
16. Igor Rochlin and David Sarne. Utilizing Costly Coordination in Multi-Agent Joint Exploration. Multiagent and Grid Systems 10(1): 23-49 (2014)
17. David Sarne, Shani Alkobi and Esther David, On the Choice of Obtaining and Disclosing the Common Value in Auctions. Artificial Intelligence 215:24–54, 2014
18. Igor Rochlin, David Sarne and Moshe Mash, Joint Search with Self-Interested Agents and the Failure of Cooperation Enhancers. Artificial Intelligence, 214:45–65, 2014
19. Nadav Sofy and David Sarne, Effective Deadlock Resolution with Self-Interested Partially-Rational Agents. Annals of Mathematics and Artificial Intelligence, 72(3-4): 225-266, 2014
20. David Sarne and Yonatan Aumann, Exploration Costs as a Means for Improving Performance in Multiagent Systems. Annals of Mathematics and Artificial Intelligence, 72(3-4): 297-329, 2014
21. Yinon Nachum, David Sarne, Sanmay Das and Onn Shehory, Two-Sided Search with Experts. Autonomous Agents and Multi-Agent Systems 29(3): 364-401, 2015
22. Avshalom Elmalech, David Sarne and Barbara Grosz, Problem Restructuring for Better Decision Making. Autonomous Agents and Multi-Agent Systems, 29(1): 1-39, 2015
23. Eran Shaham, David Sarne, Boaz Ben Moshe, Co-clustering of Fuzzy Lagged Data. Knowledge and Information Systems, 44(1): 217-252 (2015)
24. Igor Rochlin and David Sarne, Constraining Information Sharing to Improve Cooperative Information Gathering. Journal of Artificial Intelligence Research, 54:437-469, 2015
25. Chen Hajaj, Noam Hazon and David Sarne, Improving Comparison Shopping Agent's Competence through Selective Price Disclosure. Electronic Commerce Research and Applications, 14(6):563-581, 2015
26. Avshalom Elmalech, David Sarne and Noa Agmon, Agent Development as a Strategy Shaper. Autonomous Agents and Multi-Agent Systems, 30(3): 506-525 (2016)
27. Israel Sofer, David Sarne and Avinatan Hassidim, Negotiation in Exploration-based Environment. Autonomous Agents and Multi-Agent Systems, 30(4): 724-764 (2016)

28. Igor Rochlin, Yonatan Aumann, David Sarne and Luba Golosman, Efficiency and Fairness in Team Search with Self-Interested Agents. Autonomous Agents and Multi-Agent Systems, 30(3): 526-552 (2016)
29. Chen Hajaj, Noam Hazon and David Sarne, Enhancing Comparison Shopping Agents through Ordering and Gradual Information Disclosure. Autonomous Agents and Multi-Agent Systems, 31(3): 696-714 (2017)
30. Chen Hajaj and David Sarne, Selective Opportunity Disclosure at the Service of Strategic Information Platforms. Autonomous Agents and Multi-Agent Systems, 31(5):1133-1164 (2017)
31. Amos Azaria, David Sarne and Yonatan Aumann, Distributed Matching with Mixed Maximum-Minimum Utilities, Transactions on Economics and Computation, 5(2): 11:1-11:23 (2017)
32. Avi Rosenfeld, Sigal Sina, David Sarne, Or Avidov, Sarit Kraus: A Study of WhatsApp Usage Patterns and Prediction Models without Message Content. Journal of Demographic Research, 39, 647-670 (2018)
33. Ofra Amir, Finale Doshi-Velez, David Sarne: Summarizing agent strategies. Autonomous Agents and Multi-Agent Systems 33(5): 628-644 (2019)
34. Erel Segal-Halevi, Shani Alkoby, David Sarne: Obtaining costly unverifiable valuations from a single agent. Auton. Agents Multi Agent Syst. 34(2): 46 (2020)
35. Sarit Alkalay, Avivit Dolev, Chen Rosenshtein, David Sarne: Co-Op World: Adaptive Computer Game for Supporting Child Psychotherapy, Computers in Human Behavior Reports, 2, 100028 (2020)
36. Sharhadi Suryanarayana, David Sarne, Sarit Kraus: Information Design in Affiliate Marketing, Autonomous Agents and Multi-Agent Systems 35 (2), 1-28 (2021)

Papers in Refereed Conferences

1. Priel Levy, David Sarne, Michal Habani: Simple Contest Enhancers, 2020 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT), 463-469.
2. Ido Nimni, David Sarne: Effective Operator Summaries Extraction, HCOMP2020, 102-111.
3. Nir Machlev, David Sarne: Predicting Crowdworkers Performance as Human-Sensors for Robot Navigation, HCOMP2020, 92-101
4. David Sarne, Chen Rozenshtein: Incorporating Failure Events in Agents' Decision Making to Improve User Satisfaction. IJCAI 2020: 1549-1555
5. Erel Segal-Halevi, Shani Alkoby, Tomer Sharbaf, David Sarne: Obtaining Costly Unverifiable Valuations from a Single Agent. AAMAS 2019: 1216-1224
6. Shani Alkoby, David Sarne, Igal Milchtaich: Strategic Signaling for Selling Information Goods. In proceedings of IJCAI 2019: 25-31
7. Priel Levy, David Sarne, Yonatan Aumann: Temporal Information Design in Contests. IJCAI 2019: 428-434

8. David Sarne, Jonathan Schler, Alon Singer, Ayelet Sela, Ittai Bar Siman Tov: Unsupervised Topic Extraction from Privacy Policies. WWW (Companion Volume) 2019: 563-568
9. Sharadhi Alape Suryanarayana, David Sarne, Sarit Kraus: Information disclosure and partner management in affiliate marketing, In Proceedings of DAI '19
10. Michael Gershtein, David Sarne and Yonatan Aumann: Approval voting with costly information, In Proceedings of DAI '19
11. Shani Alkoby, Zihe Wang, David Sarne and Pingzhong Tang, Making Money from What You Know - How to Sell Information?, In proceeding of AAAI-19.
12. Priel Levy, David Sarne and Yonatan Aumann, Tractable (Simple) Contests, In proceedings of IJCAI-18, pp. 361-367
13. Nadav Lisovtsev and David Sarne, Modeling Assistant's Autonomy Constraints as a Means for Improving Autonomous Assistant-Agent Design, In proceedings of AAMAS-18, pp. 1468-1476
14. Ofra Amir, Finale Doshi-Velez and David Sarne, Agent Strategy Summarization. In proceedings of AAMAS 2018, pp. 1203-1207
15. Priel Levy and David Sarne, Understanding Over Participation in Contests, In proceedings of AAAI-18, pp. 1571-1578
16. David Sarne and Michael Lepioshkin, Effective Prize Structure for Simple Crowdsourcing Contests with Participation Cost, In proceedings of HCOMP 2017, pp. 167-176
17. Priel Levy, David Sarne and Igor Rochlin, Contest Design with Uncertain Performance and Costly Participation, In proceedings of IJCAI-17, pp. 302-309
18. Shani Alkoby and David Sarne, The Benefit in Free Information Disclosure When Selling Information to People, In proceedings of AAAI-17, pp. 985-992
19. Shani Alkoby, David Sarne and Igal Milchtaich, Strategic Signaling and Free Information Disclosure in Auctions, In proceedings of AAAI-17, pp. 319-327
20. Igor Rochlin, David Sarne, Ben Grynhaus and Maytal Bremer, Nurturing Group-Beneficial Information-Gathering Behaviors Through Above-Threshold Criteria Setting, In proceedings of AAAI-17, pp. 3044-3052
21. Avshalom Elmalech, David Sarne, Esther David and Chen Hajaj, Extending Workers' Attention Span Through Dummy Sub-Goals, In proceedings of HCOMP 2016, pp. 42-51 **(best paper finalist)**
22. Priel Levy and David Sarne, Intelligent Advice Provisioning for Repeated Interaction, In Proceedings of AAAI-16, pp. 842-849
23. Simon Shamoun, Reuven Cohen, David Sarne, Gal Miller, Combined TTL-based search algorithm. In proceedings of Med-Hoc-Net 2015: pp. 1-8
24. Shani Alkobi, David Sarne and Sanmay Das, Strategic Free Information Disclosure for Search-Based Information Platforms, In Proceedings of AAMAS-15, pp. 635-643

25. Chen Hajaj, John P. Dickerson, Avinatan Hassidim, Tuomas Sandholm, and David Sarne, Strategy-Proof and Efficient Kidney Exchange Using a Credit Mechanism, in Proceedings of AAAI 2015, pp. 921-928
26. Avshalom Elmalech, David Sarne, Avi Rosenfeld and Eden Shalom Erez, When Suboptimal Rules, in Proceedings of AAAI 2014, pp. 1313-1319
27. Shani Alkobi, David Sarne and Esther David, Manipulating Information Provider's Access to Information in Auctions, in Proceedings of TAAI 2014, pp. 14-25
28. Avshalom Elmalech, David Sarne and Noa Agmon, Can Agent Development Affect Developer's Strategy?, in Proceedings of AAAI 2014, pp. 923-929
29. Chen Hajaj, Noam Hazon and David Sarne, Ordering Effects and Belief Adjustment in the Use of Comparison Shopping Agents. in Proceedings of AAAI 2014, pp. 930-936
30. Chen Hajaj and David Sarne, Strategic Information Platforms - Selective Disclosure and the Price of ``Free'', in Proceedings of ACM EC'14 pp. 839-856
31. Shahar Kosti, Gal Kaminka, and David Sarne. A Novel User-Guided Interface for Robot Search, to appear in International Conference on Intelligent Robots and Systems (IROS) 2014
32. Eran Shaham, David Sarne, Boaz Ben Moshe, Efficient Error Setting for Subspace Miners, in Proceedings of the International Conference on Machine Learning (MLDM) 2014 pp. 1-15
33. Igor Rochlin and David Sarne, Constraining Information Sharing to Improve Cooperative Information Gathering, in Proceedings of AAMAS 2014, pp. 237-244 **(best student paper award)**
34. Meenal Chhabra, Sanmay Das and David Sarne, Competitive Information Provision in Sequential Search Markets, in Proceedings of AAMAS 2014, pp. 565-572
35. Igor Rochlin, Yonatan Aumann, David Sarne and Luba Golosman, Efficiency and Fairness in Team Search with Self-Interested Agents, in Proceedings of AAMAS 2014, pp. 365-372
36. Moshe Mash, Raz Lin and David Sarne, Peer-Design Agents for Reliably Evaluating Distribution of Outcomes in Environments Involving People, in Proceedings of AAMAS 2014, pp. 949-956
37. Simon Shamoun and David Sarne, Two-Sided Expanding Ring Search, in COMSNETS 2014 pp. 1-8
38. Simon Shamoun, David Sarne and Steven Goldfeder, Elastic Ring Search for Ad Hoc Networks, In proceedings of MobiQuitous 2013: 564-575
39. Igor Rochlin and David Sarne, Information Sharing Under Costly Communication in Joint Exploration, in Proceedings of AAAI 2013, pp. 847-853
40. Chen Hajaj, Noam Hazon, David Sarne and Avshalom Elmalech, Search More, Disclose Less, in Proceedings of AAAI 2013, pp. 401-408.

41. Avshalom Elmalech and David Sarne, Evaluating the Applicability of Peer-Designed Agents in Mechanisms Evaluation, in Proceedings of IAT-2012, pp. 374-381
42. Igor Rochlin, David Sarne, Moshe Laifenfeld, Coordinated Exploration with a Shared Goal in Costly Environments. Proceedings of ECAI 2012, pp. 690-695
43. Shani Alkoby, Esther David, and David Sarne, On the Choice of Obtaining and Disclosing the Common Value in Auctions, in Proceedings of IAT-2012, pp. 111-118
44. Moshe Mash, Igor Rochlin, and David Sarne, Join Me with the Weakest Partner, Please, in Proceedings of IAT-2012, pp. 17-24
45. Yinon Nahum, David Sarne, Sanmay Das and Onn Shehory, Two-Sided Search With Experts, ACM Conference on Electronic Commerce 2012, pp. 754-771
46. Israel Sofer, David Sarne and Avinatan Hassidim, "Negotiation in Exploration-based Environment", in Proceedings of AAAI 2012, pp.1450-1456
47. Igor Rochlin, David Sarne and Gil Zussman, "Sequential Multilateral Search for a Common Goal", In proceedings of IAT'11, pp. 349-356.
48. Meenal Chhabra, Sanmay Das and David Sarne: Expert-Mediated Search, in Proceedings of AAMAS 2011, pp. 415-422
49. David Sarne, Avshalom Elmalech, Barbara J. Grosz and Moti Geva: Less Is More: Restructuring Decisions to Improve Agent Search, in Proceedings of AAMAS 2011, pp. 431-438
50. Eran Shaham, David Sarne, and Boaz Ben-Moshe, Co-clustering of Lagged Data, in Proceedings of ICDM 2010, pp. 451-460
51. David Sarne, Simon Shamoun, Eli Rata, "Increasing Threshold Search for Best-Valued Agents", in Proceedings of AAAI 2010, pp.848-853
52. David Sarne, "Competitive Comparison-Shopping Mediated Markets". In proceedings of IAT'09, pp. 387-394, 2009
53. David Sarne, Barbara Grosz, Peter Owotoki. "Effective Information Value Calculation for Interruption Management in Multi-Agent Scheduling", in Proceedings of ICAPS 2008, pp. 313-321.
54. Michal Chalamish, David Sarne, Sarit Kraus. Programming Agents as a Means of Capturing Self-Strategy. In Proceedings of the Seventh International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS-2008), pp. 1161-1168
55. Yonatan Aumann, Noam Hazon, Sarit Kraus and David Sarne. Physical Search Problems Applying Economic Search Models. In Proceedings of AAAI 2008, pp. 9-16.
56. David Sarne, Barbara Grosz: Sharing Experiences to Learn User Characteristics in Dynamic Environments with Sparse Data. AAMAS 2007 pp. 202-209

57. David Sarne, Sarit Kraus, Takayuki Ito: Scaling-Up Shopbots - a Dynamic Allocation-Based Approach. AAMAS 2007 pp. 338-345
58. David Sarne, Teijo Arponen: Sequential Decision Making in Parallel Two-Sided Economic Search. AAMAS 2007 pp. 438-445
59. David Sarne, Barbara Grosz: Estimating Information Value in Collaborative Multi-Agent Planning Systems. AAMAS 2007 pp. 227-234
60. Efrat Manisterski, David Sarne, Sarit Kraus: Enhancing MAS Cooperative Search through Coalition Partitioning. IJCAI 2007, pp. 1415-1421
61. Raz Lin, Daphna Dor-Shifer, Saar Rosenberg, Sarit Kraus and David Sarne: Towards the Fourth Generation of Cellular Networks: Improving Performance Using Distributed Negotiation. MSWiM 2006, pp. 347-356.
62. Efrat Manisterski, David Sarne, Sarit Kraus: Integrating parallel interactions into cooperative search. AAMAS 2006, pp. 257-264.
63. Raz Lin, Daphna Dor-Shifer, Sarit Kraus, David Sarne: Local Negotiation in Cellular Networks: From Theory to Practice. IAAI 2006
64. David Sarne and Sarit Kraus: Cooperative Exploration in the Electronic Marketplace. AAAI-05, pp. 158-163
65. David Sarne and Sarit Kraus: Solving the Auction-Based Task Allocation Problem in an Open Environment. AAAI-05, pp. 164-169
66. David Sarne and Sarit Kraus: Time-Variant Distributed Agent Matching Applications. In Proceedings of AAMAS-04, pp. 168-175, 2004

Chapters in Refereed Books

1. David Sarne, Yonatan Aumann: "Search Costs as a Means for Improving Market Performance", in Agent-Mediated Electronic Commerce. Designing Trading Strategies and Mechanisms for Electronic Markets, Lecture Notes in Business Information Processing Volume 118, 2012, pp 76-91.
2. Esther David, David Sarne: "The Choice of Eliminating the Uncertainty Cloud, in Auctions", in Agent-Mediated Electronic Commerce. Designing Trading Strategies and Mechanisms for Electronic Markets. Lecture Notes in Business Information Processing Volume 59, 2010, pp 15-28.
3. Philip Hendrix, David Sarne: The Effect of Mediated Partnerships in Two-Sided Search. In Cooperative Information Agents XI, Lecture Notes in Computer Science Volume 4676, 2007, pp 224-240.
4. David Sarne, Meirav Hadad, Sarit Kraus: Auction Equilibrium Strategies for Task Allocation, in Uncertain Environments. Cooperative Information Agents VIII, Lecture Notes in Computer Science Volume 3191, 2004, pp 271-285. **(best paper finalist)**
5. David Sarne and Sarit Kraus: Agents Strategies for the Dual Parallel Search in Partnership Formation Applications. In Agent-Mediated Electronic Commerce VI. Theories for and Engineering of Distributed Mechanisms and Systems, Lecture Notes in Computer Science Volume 3435, 2005, pp 158-172.

6. David Sarne, Sarit Kraus: Agent's Multiple Inquiries for Enhancing the Partnership Formation Process. In Cooperative Information Agents VIII, Lecture Notes in Computer Science Volume 3191, 2004, pp 286-302. **(best paper finalist)**
7. David Sarne, Sarit Kraus: The Search for Coalition Formation in Costly Environments. In Cooperative Information Agents VII, Lecture Notes in Computer Science Volume 2782, 2003, pp 117-136 **(best paper finalist)**

Other (Conference Short Papers, Workshop and Position Papers)

1. Or Zipori, David Sarne: ML-based Arm Recommendation in Short-Horizon MABs, HAI 2021, to appear.
2. Reut Asraf, Chen Rosenshtein, David Sarne: On the Effect of User Faults on her Perception of Agent's Faults in Collaborative Settings, HAI 2021, to appear.
3. Nadav Sofy, David Sarne: On the failure of game theoretic approach for distributed deadlock resolution. AAMAS 2012: 1445-1446
4. Amos Azaria, David Sarne, Yonatan Aumann: Distributed Matching with Mixed Maximum-Minimum Utilities. IAT 2012: 134-139
5. Ece Kamar, Barbara Grosz, David Sarne: Modeling User Perception of Interaction Opportunities in Collaborative Human-Computer Settings, AAAI 2007, pp. 1872-1873
6. David Sarne and Barbara Grosz: Timing Interruptions for Better Human-Computer Coordinated Planning , 2006 AAAI Spring Symposium on Distributed Plan and Schedule Management, pp. 161-162