

# Catuscia Palamidessi

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

169  
papers

3,047  
citations

25  
h-index

49  
g-index

208  
ext. papers

3,425  
ext. citations

1  
avg, IF

5.4  
L-index

#	Paper	IF	Citations
169	Information Leakage Games: Exploring Information as a Utility Function. <i>ACM Transactions on Privacy and Security</i> , <b>2022</b> , 25, 1-36	2.9	
168	Refinement Orders for Quantitative Information Flow and Differential Privacy. <i>Journal of Cybersecurity and Privacy</i> , <b>2021</b> , 1, 40-77	4	
167	Enhanced models for privacy and utility in continuous-time diffusion networks. <i>International Journal of Information Security</i> , <b>2021</b> , 20, 763-782	2.8	
166	Machine learning fairness notions: Bridging the gap with real-world applications. <i>Information Processing and Management</i> , <b>2021</b> , 58, 102642	6.3	3
165	A logical characterization of differential privacy. <i>Science of Computer Programming</i> , <b>2020</b> , 188, 102388	1.1	1
164	Estimating g-Leakage via Machine Learning <b>2020</b> ,		1
163	Differential privacy. <i>Information Security and Cryptography</i> , <b>2020</b> , 433-444	3.6	4
162	The Science of Quantitative Information Flow. <i>Information Security and Cryptography</i> , <b>2020</b> ,	3.6	7
161	Optimal Obfuscation Mechanisms via Machine Learning <b>2020</b> ,		3
160	Dynamic Slicing for Concurrent Constraint Languages. <i>Fundamenta Informaticae</i> , <b>2020</b> , 177, 331-357	1	2
159	Comparing Systems: Max-Case Refinement Orders and Application to Differential Privacy <b>2019</b> ,		3
158	An axiomatization of information flow measures. <i>Theoretical Computer Science</i> , <b>2019</b> , 777, 32-54	1.1	8
157	Catch me if you can <b>2019</b> ,		1
156	Utility-Preserving Privacy Mechanisms for Counting Queries. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 487-495	0.9	1
155	Enhanced Models for Privacy and Utility in Continuous-Time Diffusion Networks. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 313-331	0.9	1
154	Differential Inference Testing: A Practical Approach to Evaluate Sanitizations of Datasets <b>2019</b> ,		2
153	<b>2019</b> ,		6

152	Invited Paper: Local Differential Privacy on Metric Spaces: Optimizing the Trade-Off with Utility <b>2018</b> ,		14
151	Leakage and Protocol Composition in a Game-Theoretic Perspective. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 134-159	0.9	4
150	A Logical Characterization of Differential Privacy via Behavioral Metrics. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 75-96	0.9	3
149	A Game-Theoretic Approach to Information-Flow Control via Protocol Composition. <i>Entropy</i> , <b>2018</b> , 20,	2.8	6
148	Geometric Noise for Locally Private Counting Queries <b>2018</b> ,		1
147	Feature Selection with RByi Min-Entropy. <i>Lecture Notes in Computer Science</i> , <b>2018</b> , 226-239	0.9	4
146	Quantifying leakage in the presence of unreliable sources of information. <i>Journal of Computer and System Sciences</i> , <b>2017</b> , 88, 27-52	1	2
145	Efficient Utility Improvement for Location Privacy. <i>Proceedings on Privacy Enhancing Technologies</i> , <b>2017</b> , 2017, 308-328	3.2	18
144	Information Leakage Games. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 437-457	0.9	9
143	Slicing Concurrent Constraint Programs. <i>Lecture Notes in Computer Science</i> , <b>2017</b> , 76-93	0.9	2
142	Compositional methods for information-hiding □ <i>Mathematical Structures in Computer Science</i> , <b>2016</b> , 26, 908-932	0.5	1
141	Preserving differential privacy under finite-precision semantics. <i>Theoretical Computer Science</i> , <b>2016</b> , 655, 92-108	1.1	11
140	Axioms for Information Leakage <b>2016</b> ,		19
139	Preface to the special issue on quantitative information flow. <i>Mathematical Structures in Computer Science</i> , <b>2015</b> , 25, 203-206	0.5	2
138	Abstract interpretation of temporal concurrent constraint programs. <i>Theory and Practice of Logic Programming</i> , <b>2015</b> , 15, 312-357	0.8	6
137	Constructing elastic distinguishability metrics for location privacy. <i>Proceedings on Privacy Enhancing Technologies</i> , <b>2015</b> , 2015, 156-170	3.2	36
136	Location privacy via geo-indistinguishability. <i>ACM SIGLOG News</i> , <b>2015</b> , 2, 46-69	0.3	14
135	On the information leakage of differentially-private mechanisms. <i>Journal of Computer Security</i> , <b>2015</b> , 23, 427-469	0.8	12

134	Geo-indistinguishability: A Principled Approach to Location Privacy. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 49-72	0.9	13
133	Location Privacy via Geo-Indistinguishability. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 28-38	0.9	7
132	Quantitative Approaches to the Protection of Private Information: State of the Art and Some Open Challenges. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 3-7	0.9	1
131	A Declarative View of Signaling Pathways. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 183-201	0.9	1
130	Additive and Multiplicative Notions of Leakage, and Their Capacities <b>2014</b> ,		32
129	Foundational aspects of security. <i>Journal of Computer Security</i> , <b>2014</b> , 22, 201-202	0.8	8
128	Optimal Geo-Indistinguishable Mechanisms for Location Privacy <b>2014</b> ,		134
127	Generalized Differential Privacy: Regions of Priors That Admit Robust Optimal Mechanisms. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 292-318	0.9	3
126	A Predictive Differentially-Private Mechanism for Mobility Traces. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 21-41	0.9	39
125	Compositionality Results for Quantitative Information Flow. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 368-383	0.9	8
124	Generalized Bisimulation Metrics. <i>Lecture Notes in Computer Science</i> , <b>2014</b> , 32-46	0.9	19
123	Geo-indistinguishability <b>2013</b> ,		448
122	A Differentially Private Mechanism of Optimal Utility for a Region of Priors. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 41-62	0.9	3
121	Broadening the Scope of Differential Privacy Using Metrics. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 82-102	0.9	103
120	Quantitative Approaches to Information Protection. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 31-32	0.9	
119	Quantitative information flow in interactive systems. <i>Journal of Computer Security</i> , <b>2012</b> , 20, 3-50	0.8	12
118	Epistemic Strategies and Games on Concurrent Processes. <i>ACM Transactions on Computational Logic</i> , <b>2012</b> , 13, 1-35	0.9	2
117	Measuring Information Leakage Using Generalized Gain Functions <b>2012</b> ,		97

116	Differential Privacy: On the Trade-Off between Utility and Information Leakage. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 39-54	0.9	26
115	Spatial and Epistemic Modalities in Constraint-Based Process Calculi. <i>Lecture Notes in Computer Science</i> , <b>2012</b> , 317-332	0.9	14
114	Quantitative Information Flow and Applications to Differential Privacy. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 211-230	0.9	10
113	Information hiding in probabilistic concurrent systems. <i>Theoretical Computer Science</i> , <b>2011</b> , 412, 3072-3089	0.9	18
112	Deriving Labels and Bisimilarity for Concurrent Constraint Programming. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 138-152	0.9	7
111	On the Relation between Differential Privacy and Quantitative Information Flow. <i>Lecture Notes in Computer Science</i> , <b>2011</b> , 60-76	0.9	30
110	Some Bridging Results and Challenges in Classical, Quantum and Computational Randomness <b>2011</b> , 73-91		1
109	Probabilistic Information Flow <b>2010</b> ,		12
108	Compositional modelling of signalling pathways in timed concurrent constraint programming <b>2010</b> ,		5
107	Entropy and Attack Models in Information Flow. <i>International Federation for Information Processing</i> , <b>2010</b> , 53-54		
106	Information Hiding in Probabilistic Concurrent Systems <b>2010</b> ,		8
105	Reconciling Belief and Vulnerability in Information Flow <b>2010</b> ,		16
104	Making random choices invisible to the scheduler. <i>Information and Computation</i> , <b>2010</b> , 208, 694-715	0.8	13
103	Computing the Leakage of Information-Hiding Systems. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 373-388	0.9	21
102	Probable Innocence in the Presence of Independent Knowledge. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 141-156	0.9	5
101	Safe Equivalences for Security Properties. <i>International Federation for Information Processing</i> , <b>2010</b> , 55-70		4
100	Information Flow in Interactive Systems. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 102-116	0.9	11
99	Concurrent and Reactive Constraint Programming. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 231-253	0.9	2

98	Compositionality of Secure Information Flow. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 19-19	0.9	
97	Interactive Information Flow. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 111-111	0.9	
96	A framework for abstract interpretation of timed concurrent constraint programs <b>2009</b> ,		6
95	Quantitative Notions of Leakage for One-try Attacks. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2009</b> , 249, 75-91	0.7	73
94	Probabilistic and nondeterministic aspects of anonymity. <i>Theoretical Computer Science</i> , <b>2009</b> , 410, 4006-4025		3
93	A quantitative doxastic logic for probabilistic processes and applications to information-hiding. <i>Journal of Applied Non-Classical Logics</i> , <b>2009</b> , 19, 489-516	0.5	5
92	Model Checking Probabilistic and Stochastic Extensions of the $\mathbb{E}$ Calculus. <i>IEEE Transactions on Software Engineering</i> , <b>2009</b> , 35, 209-223	3.5	16
91	Explicit fairness in testing semantics. <i>Logical Methods in Computer Science</i> , <b>2009</b> , 5,		3
90	Bounds on the Leakage of the Input Distribution in Information-Hiding Protocols. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 36-51	0.9	
89	Anonymity protocols as noisy channels. <i>Information and Computation</i> , <b>2008</b> , 206, 378-401	0.8	112
88	On the Bayes risk in information-hiding protocols. <i>Journal of Computer Security</i> , <b>2008</b> , 16, 531-571	0.8	58
87	On the Asynchronous Nature of the Asynchronous $\mathbb{E}$ Calculus. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 473-492	0.9	11
86	Compositional Methods for Information-Hiding <b>2008</b> , 443-457		16
85	Axiomatizations for probabilistic finite-state behaviors. <i>Theoretical Computer Science</i> , <b>2007</b> , 373, 92-114	1.1	16
84	Separation of synchronous and asynchronous communication via testing. <i>Theoretical Computer Science</i> , <b>2007</b> , 386, 218-235	1.1	8
83	Tutorial on separation results in process calculi via leader election problems. <i>Theoretical Computer Science</i> , <b>2007</b> , 388, 267-289	1.1	16
82	A framework for analyzing probabilistic protocols and its application to the Partial Secrets Exchange. <i>Theoretical Computer Science</i> , <b>2007</b> , 389, 512-527	1.1	6
81	Fair $\mathbb{E}$ <i>Electronic Notes in Theoretical Computer Science</i> , <b>2007</b> , 175, 3-26	0.7	1

80	Weak Probabilistic Anonymity. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2007</b> , 180, 55-76	0.7	21
79	Probability of Error in Information-Hiding Protocols. <i>Computer Security Foundations Workshop (CSFW), Proceedings of the IEEE</i> , <b>2007</b> ,		13
78	Model checking the probabilistic pi-calculus <b>2007</b> ,		9
77	Signature-based Symbolic Algorithm for Optimal Markov Chain Lumping <b>2007</b> ,		15
76	Symbolic Bisimulations for Probabilistic Systems <b>2007</b> ,		5
75	Universal Timed Concurrent Constraint Programming <b>2007</b> , 464-465		
74	On Recursion, Replication and Scope Mechanisms in Process Calculi. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 185-206	0.9	3
73	Making Random Choices Invisible to the Scheduler. <i>Lecture Notes in Computer Science</i> , <b>2007</b> , 42-58	0.9	20
72	Declarative Diagnosis of Temporal Concurrent Constraint Programs <b>2007</b> , 271-285		5
71	A Probabilistic Applied Pi-Calculus <b>2007</b> , 175-190		22
70	Formal Approaches to Information-Hiding (Tutorial) <b>2007</b> , 347-362		1
69	Metrics for Action-labelled Quantitative Transition Systems. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2006</b> , 153, 79-96	0.7	43
68	Anonymity in Probabilistic and Nondeterministic Systems. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2006</b> , 162, 277-279	0.7	1
67	Separation of Synchronous and Asynchronous Communication Via Testing. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2006</b> , 154, 95-108	0.7	7
66	Expressiveness of Probabilistic $\lambda$ -calculus. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2006</b> , 164, 119-136	0.7	4
65	A Congruence Format for Name-passing Calculi. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2006</b> , 156, 169-189	0.7	11
64	Probabilistic and Nondeterministic Aspects of Anonymity. <i>Electronic Notes in Theoretical Computer Science</i> , <b>2006</b> , 155, 33-42	0.7	4
63	Probable innocence revisited. <i>Theoretical Computer Science</i> , <b>2006</b> , 367, 123-138	1.1	18

62	Separation Results Via Leader Election Problems. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 172-194	0.9	1
61	A Declarative Framework for Security: Secure Concurrent Constraint Programming. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 449-450	0.9	3
60	Probable Innocence Revisited. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 142-157	0.9	3
59	Anonymity Protocols as Noisy Channels <b>2006</b> , 281-300		16
58	A randomized encoding of the . <i>Theoretical Computer Science</i> , <b>2005</b> , 335, 373-404	1.1	14
57	Axiomatizations for Probabilistic Finite-State Behaviors. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 110-124.	0.9	8
56	Probabilistic Anonymity. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 171-185	0.9	49
55	A Framework for Analyzing Probabilistic Protocols and Its Application to the Partial Secrets Exchange. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 146-162	0.9	7
54	Compositional Reasoning for Probabilistic Finite-State Behaviors. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 309-337	0.9	12
53	Encoding transition systems in sequent calculus. <i>Theoretical Computer Science</i> , <b>2003</b> , 294, 411-437	1.1	21
52	Comparing the expressive power of the synchronous and asynchronous $\pi$ -calculi. <i>Mathematical Structures in Computer Science</i> , <b>2003</b> , 13, 685-719	0.5	115
51	On the expressive power of temporal concurrent constraint programming languages <b>2002</b> ,		12
50	A Randomized Distributed Encoding of the $\pi$ -Calculus with Mixed Choice <b>2002</b> , 537-549		3
49	On the generalized dining philosophers problem <b>2001</b> ,		6
48	A Temporal Concurrent Constraint Programming Calculus. <i>Lecture Notes in Computer Science</i> , <b>2001</b> , 302-316	1.1	14
47	The Replacement Operation for CCP Programs. <i>Lecture Notes in Computer Science</i> , <b>2000</b> , 216-233	0.9	3
46	Concurrent Constraint Programming with Process Mobility. <i>Lecture Notes in Computer Science</i> , <b>2000</b> , 463-477	0.9	12
45	Probabilistic Asynchronous $\pi$ -Calculus. <i>Lecture Notes in Computer Science</i> , <b>2000</b> , 146-160	0.9	41



44	Foundational aspects of syntax. <i>ACM Computing Surveys</i> , <b>1999</b> , 31, 11	13.4	18
43	Expressiveness and Distributed Implementation of Concurrent Calculi with Link Mobility. <i>Lecture Notes in Computer Science</i> , <b>1999</b> , 28-29	0.9	
42	Proving concurrent constraint programs correct. <i>ACM Transactions on Programming Languages and Systems</i> , <b>1997</b> , 19, 685-725	1.6	40
41	Complementation in abstract interpretation. <i>ACM Transactions on Programming Languages and Systems</i> , <b>1997</b> , 19, 7-47	1.6	40
40	An algebraic perspective of constraint logic programming. <i>Journal of Logic and Computation</i> , <b>1997</b> , 7, 1-38	0.4	12
39	Comparing the expressive power of the synchronous and the asynchronous $\lambda$ -calculus <b>1997</b> ,		50
38	Constraint Logic Programming with Dynamic Scheduling: A Semantics Based on Closure Operators. <i>Information and Computation</i> , <b>1997</b> , 137, 41-67	0.8	12
37	Confluence in concurrent constraint programming. <i>Theoretical Computer Science</i> , <b>1997</b> , 183, 281-315	1.1	12
36	Partial order and SOS semantics for linear constraint programs. <i>Lecture Notes in Computer Science</i> , <b>1997</b> , 256-273	0.9	9
35	Encoding Transition Systems in Sequent Calculus: Preliminary Report. <i>Electronic Notes in Theoretical Computer Science</i> , <b>1996</b> , 3, 138-152	0.7	3
34	Weak relative pseudo-complements of closure operators. <i>Algebra Universalis</i> , <b>1996</b> , 36, 405-412	0.4	19
33	Linear constraint systems as high-level nets. <i>Lecture Notes in Computer Science</i> , <b>1996</b> , 498-513	0.9	
32	Nondeterminism and infinite computations in constraint programming. <i>Theoretical Computer Science</i> , <b>1995</b> , 151, 37-78	1.1	47
31	Negation as Instantiation. <i>Information and Computation</i> , <b>1995</b> , 120, 263-278	0.8	5
30	Confluence in concurrent constraint programming. <i>Lecture Notes in Computer Science</i> , <b>1995</b> , 531-545	0.9	5
29	Complementation in abstract interpretation. <i>Lecture Notes in Computer Science</i> , <b>1995</b> , 100-117	0.9	8
28	Proving concurrent constraint programs correct <b>1994</b> ,		12
27	A declarative approach for first-order built-in's of Prolog. <i>Applicable Algebra in Engineering, Communications and Computing</i> , <b>1994</b> , 5, 159-191	0.6	6

26	Embedding as a Tool for Language Comparison. <i>Information and Computation</i> , <b>1994</b> , 108, 128-157	0.8	53
25	Concurrent constraint programming. <i>Lecture Notes in Computer Science</i> , <b>1994</b> , 1-2	0.9	
24	A logical denotational semantics for constraint logic programming. <i>Lecture Notes in Computer Science</i> , <b>1994</b> , 195-210	0.9	
23	Concurrent constraint programming. <i>Lecture Notes in Computer Science</i> , <b>1994</b> , 1-2	0.9	2
22	A Model-Theoretic Reconstruction of the Operational Semantics of Logic Programs. <i>Information and Computation</i> , <b>1993</b> , 103, 86-113	0.8	45
21	A theory of first-order built-in's of prolog <b>1992</b> , 69-83		1
20	Structural operational semantics for AKL. <i>Future Generation Computer Systems</i> , <b>1992</b> , 8, 409-421	7.5	5
19	From failure to success: comparing a denotational and a declarative semantics for Horn clause logic. <i>Theoretical Computer Science</i> , <b>1992</b> , 101, 239-263	1.1	2
18	Comments on [logic programming with equations] <i>The Journal of Logic Programming</i> , <b>1991</b> , 11, 85-89		
17	Semantic models for concurrent logic languages. <i>Theoretical Computer Science</i> , <b>1991</b> , 86, 3-33	1.1	5
16	Kernel-LEAF: A logic plus functional language. <i>Journal of Computer and System Sciences</i> , <b>1991</b> , 42, 139-185		66
15	Structural operational semantics for Kernel Andorra Prolog. <i>Lecture Notes in Computer Science</i> , <b>1991</b> , 238-253	0.9	
14	A fully abstract model for concurrent constraint programming. <i>Lecture Notes in Computer Science</i> , <b>1991</b> , 296-319	0.9	25
13	The failure of failures in a paradigm for asynchronous communication. <i>Lecture Notes in Computer Science</i> , <b>1991</b> , 111-126	0.9	25
12	Embedding as a tool for language comparison: On the CSP hierarchy. <i>Lecture Notes in Computer Science</i> , <b>1991</b> , 127-141	0.9	7
11	Algebraic properties of idempotent substitutions <b>1990</b> , 386-399		24
10	On the asynchronous nature of communication in concurrent logic languages: A fully abstract model based on sequences. <i>Lecture Notes in Computer Science</i> , <b>1990</b> , 99-114	0.9	9
9	Declarative modeling of the operational behavior of logic languages. <i>Theoretical Computer Science</i> , <b>1989</b> , 69, 289-318	1.1	167

8	Control flow versus logic: A denotational and a declarative model for Guarded Horn Clauses. <i>Lecture Notes in Computer Science</i> , <b>1989</b> , 165-176	0.9	5
7	Contributions to the semantics of logic perpetual processes. <i>Acta Informatica</i> , <b>1988</b> , 25, 691-711	0.9	9
6	A synchronization logic: Axiomatics and formal semantics of generalized horn clauses. <i>Information and Control</i> , <b>1984</b> , 60, 36-69		26
5	On the Expressiveness of Linearity vs Persistence in the Asynchronous Pi-Calculus		13
4	Preserving differential privacy under finite-precision semantics.. <i>Electronic Proceedings in Theoretical Computer Science</i> , <i>EPTCS</i> ,117, 1-18		1
3	A non-local method for robustness analysis of floating point programs. <i>Electronic Proceedings in Theoretical Computer Science</i> , <i>EPTCS</i> ,85, 63-76		3
2	Differential Privacy for Relational Algebra: Improving the Sensitivity Bounds via Constraint Systems. <i>Electronic Proceedings in Theoretical Computer Science</i> , <i>EPTCS</i> ,85, 92-105		11
1	Hide and New in the Pi-Calculus. <i>Electronic Proceedings in Theoretical Computer Science</i> , <i>EPTCS</i> ,89, 65-79		6