

Curriculum Vitae

Prof. Dr. Anand Srivastav

Personal Data

Name Prof. Dr. Anand Srivastav
(Dipl. Math., Dipl. Phys.)

Place/Date of Birth Agra (India), in 1958

Affiliation

Institution Christian-Albrechts-Universität zu Kiel (CAU)
Institute Department of Computer Science
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Education

1996 Habilitation in Computer Science, Freie Universität zu Berlin, Germany
1988 Dr. rer. nat. (in Mathematics), Westfälische Wilhelms-Universität Münster
1988 Dipl. Phys. degree (Master of Physics), Westfälische Wilhelms-Universität
Münster, Germany
1984 Dipl. Math. degree (Master of Mathematics), Westfälische Wilhelms-
Universität Münster, Germany
1978 – 1984 Study of Physics and Mathematics at the Westfälische Wilhelms-
Universität Münster, Germany
1965 – 1978 School Education in India and Germany

Academic Appointments

since 1997	Professor for Mathematics (Discrete Optimization), Christian-Albrechts-Universität zu Kiel
1995 – 1997	Assistant Professor at the Computer Science Department, Humboldt-Universität zu Berlin
1994 – 1995	Visiting Professor at the Computer Science Department, Freie Universität Berlin
1993 – 1994	Visiting Professor at IMA (University of Minnesota), Courant Institute for Mathematical Sciences (New York University) and Yale University, USA
1988 – 1993	Assistant Professor, Institute for Discrete Mathematics, Rheinische Friedrich-Wilhelms-Universität Bonn

Important Functions

since 2008	Co-Speaker of the Research Platforms in the Cluster of Excellence “The Future Ocean”
2007 – 2013	Director of “Computational Science Center” at Christian-Albrechts-Universität zu Kiel
since 2006	PI in the Cluster of Excellence “The Future Ocean” of the German Research Foundation (DFG), Christian-Albrechts-Universität zu Kiel
since 2004	Director of the Department of Computer Science, Christian-Albrechts-Universität zu Kiel
2000 – 2005	Speaker of the DFG Research Training Group GRK 357 “Efficient Algorithms and Multiscale Methods”
1999 – 2003	Managing Director of “Mathematisches Seminar II”, Christian-Albrechts-Universität zu Kiel.

Honours and Awards

2013	Guest professorship of the Max-Planck Society (MPG) at the Indo-German Center of Computer Science, New Delhi
1997	Research stipend of the Japan Society of Science
1994 – 1995	Habilitation stipend awarded by the German Research Foundation (DFG)

Key Indicators

Publications	90 peer-reviewed articles and book chapters.
Third party funding	Approx. 3.4 million € (appr. 20 DFG PhD and postdoc projects).

Theses (Diploma, Dissertation, Habilitation)

Derandomized Algorithms in Combinatorial Optimization. A. Srivastav. 180 pages. Habilitation, Institut für Informatik, Freie Universität Berlin, 1995.

Charakterisierungssätze für reelle Banach Algebren und Sätze vom Radon-Nikodym Typ für Spuren auf C^ - und W^* -Algebren*. A. Srivastav. 112 pages, Doctoral Dissertation, Mathematisches Institut, Westfälische Wilhelms-Universität Münster, 1987.

Ladungswolken und Stromverteilung in angeregten Wasserstoffatomen. A. Srivastav. 80 pages, Diploma Thesis, Institut für Theoretische Physik, Westfälische Wilhelms-Universität Münster, 1988.

Charakterisierung von C^ -Algebren mit Hilfe des Berkson-Glickfeld Theorems*. A. Srivastav. 98 pages, Diploma Thesis, Mathematisches Institut, Westfälische Wilhelms-Universität Münster, 1984.

Supervised Habilitations and Doctoral Dissertations

Supervised Habilitations:

Prof. Dr. Gerold Jäger, Senior lecturer (associate professor) at Department of Mathematics and Mathematical Statistics, Umea University, Sweden: *The Theory of Tolerances with Applications to the Traveling Salesman Problem*, 2011, 240 pages, Kiel University

PD Michael Gnewuch, Privatdozent, Mathematisches Seminar, Kiel University, Kiel, Germany: *High-Dimensional Problems: Multivariate Linear Tensor Product Problems, Multivariate Numerical Integration, and Geometric Discrepancy*, 2009, Kiel University,

Prof. Dr. Benjamin Doerr, Ecole Polytechnique Paris, France: *Integral Approximation*, 2005, 223 pages, Mathematisches Seminar, Christian-Albrechts-Universität zu Kiel.

Prof. Dr. Tomasz Schoen, Adam Mickiewicz University, Poznan, Poland: *Aspects of Combinatorial Number Theory*, 2001, 127 pages, Kiel University,

Doctoral Dissertations:

Mourad El Ouali, *Randomized Approximation for the Matching and Vertex Cover Problem in Hypergraphs: Complexity and Algorithms*, 2013, 141 pages, Institut für Informatik, Christian-Albrechts-Universität zu Kiel

Volkmar Sauerland, *Algorithm Engineering for some Complex Practice Problems: Exact Algorithms, Heuristics and Hybrid Evolutionary Algorithms*, 2012, 187 pages, Institut für Informatik, Christian-Albrechts-Universität zu Kiel

Lasse Kliemann, *Networks and Distributed Operation: The Price of Anarchy in Non-Atomic Routing and Network Formation*, 2009, 252 pages, Institut für Informatik, Christian-Albrechts-Universität zu Kiel

Rene Lindloh, *Cubature Formulas on Wavelet Spaces*, 2007, 124 pages, Institut für Informatik, Christian-Albrechts-Universität zu Kiel

Sören Werth, *Probabilistic Analysis of Euclidean Multi Depot Vehicle Routing and related Problems*, 2006, 89 pages, Institut für Informatik, Christian-Albrechts-Universität zu Kiel

Nils Hebbinghaus: *Discrepancy of Arithmetic Structures*, 2005, 112 pages, Institut für Informatik und Praktische Mathematik, Christian-Albrechts-Universität zu Kiel

Nitin Ahuja: *Efficient Derandomization of the Lovasz-Local-Lemma and Applications to Coloring and Packing Problems*, 2003, 61 pages, Mathematisches Seminar, Christian-Albrechts-Universität zu Kiel

Andreas Baltz: *Algorithmic and Probabilistic Aspects of the Bipartite Travelling Salesman Problem*, 2001, 73 pages, Mathematisches Seminar, Christian-Albrechts-Universität zu Kiel

Benjamin Doerr: *Multi-Color Discrepancy*, 2000, 108 pages, Mathematisches Seminar, Christian-Albrechts-Universität zu Kiel

Clemens Gröpel: *Binary Decision Diagrams for Random Boolean Functions*, 1998, Institut für Informatik, Humboldt-Universität zu Berlin

Petra Knieper: *Discrepancy of Arithmetic Progressions*, 1998, Institut für Informatik, Humboldt-Universität zu Berlin

Conference co-chairs and organization

2016

June 12th -18th, 2016, Varenna, Italy: *International Workshop in Discrepancy Theory*

May 02nd -03rd, 2016, Kiel, Germany: *Indo-German Colloquium: CAU and DEI Education and Research in Dialogue*

February 22nd -26th, 2016, Chennai, India: *DFG Indo-German Spring School on Algorithms for Big Data*

2013

January 16th -18th, 2013, Dayalbagh, Agra, India: *Indo-German Workshop on Engineering and Analysis of Evolutionary Algorithms*

2010

June 2nd -5th, 2010, Bonn: *DFG German-Indian Workshop/ Round-table on Discrete Structures and Algorithms*

2009

May 7th -8th, 2009, Kiel: *DFG SPP Workshop Algorithm Engineering for Integer Programming*

2007

June 18th -22nd, 2007, Villa Cipressi, Varenna, Italy: *Conference Discrepancy Theory and Related Areas*

2006

June 18th -22nd, 2016, Varenna, ITALY: *International Workshop Discrepancy Theory and Related Areas*

2005

April 24th -29th, 2005, Bertinoro, Italy: *Erdős Magic for Algorithms and Games*

January 28th -29th, 2005, Kiel: *Selfish Routing in Networks*

2004

March 7th -13th, 2004, Oberwolfach: *Discrepancy Theory and Its Applications*

August 29th -September 3rd, 2004, Schloss Dagstuhl: *Dagstuhl Miniseminar: Analysis of Combinatorial Algorithms and Concentration of Measure*

November 12th -13th, 2004, Kiel: *Kiel-Göteborg Workshop on Probability and Combinatorics*

2003

January 30th -February 1st, 2003, Kiel: *Workshop Effiziente Algorithmen*

October 10th -12th, 2003, Leck: *GEAM Klausurtagung*

November 29th- December 4th, 2003, Zürich: *Winterschool Approximation Algorithms and Randomization*

2002

May 13th, 2002, Lübeck: *GEAM Tag*

June 14th- 16th, 2002, Leck: *GEAM Klausurtagung*

2001

December 7th + 8th, 2001, Kiel: *Symposium des GEAM*

January 30th – February 1st, 2001, Kiel: *Workshop Effiziente Algorithmen*

1999

June 5th, 1999, Kiel: *Workshop Probabilistic Algorithms*

June 6th – 8th, 1999, Plön: *Summer School Probabilistic Methods and Algorithms*

1998

September 1998, Kiel: *International Workshop Discrepancy Theory and its Applications*

Invited talks (since 2006)

Anand Srivastav, *Algorithm Engineering for Big Data Problems*, Indo-German Workshop DEI-CAU Research and Education Connect (RECON 2015), Dayalbagh Educational Institute, Agra, India, 15.-20.02.2015

Anand Srivastav, *Derandomized Algorithms of Discrete Packing and Covering Problems*, Indo-German Workshop on Algorithms, Indian Statistical Institute Kolkata, Kolkatta, India, 07.-13.03.2015

Anand Srivastav, *Consciousness and Artificial Intelligence in the Computer Science Debate*, Indo German Colloquium, CAU and DEI Education and Research in Dialogue, Kiel, Germany, 01.-04.06.2015

Anand Srivastav, *Humboldts Ideal of Reseaching and Teaching*, Symposium on Value-based Education (VALEDU 2015), Dayalbagh Educational Institute (DEI), Deemed University, Agra, India, 20.-31.10.2015

Anand Srivastav, *Deutsch-Indische Wissenschaftsbeziehungen im Wandel*, Jahreshauptversammlung Deutsch-Indische Gesellschaft, Stuttgart, Germany, 06.-07.11.2015

Anand Srivastav, *Quantum-Inspired Evolutionary Algorithms for Combinatorics and Marine Science*, Quanto and Nano Computing Systems and Applications (QANSAS 2015), Dayalbagh Educational Institute, Agra, India, 26.-29.11.2015

Anand Srivastav, *Derandomization*, New York University, New York City, USA, 07.-09.12.2015

Anand Srivastav, *Randomized Approximation for the Multiset Cover problem in Hypergraphs*, Université Pierre et Marie Curie, Paris, France, 30.-30.04.2014

Anand Srivastav, *Randomized Algorithms for Covering Problems*, Faculty of Science, Deemed University Dayalbagh Educational Institute, Agra, India, 13.-13.03.2014

Anand Srivastav, *Streaming Algorithms for genome Assembly*, High-Performance Graph algorithms and Applications in Computational Science, Leibniz-Zentrum für Informatik, Schloss Dagstuhl, Germany, 09.-14.11.2014

Anand Srivastav, *Algorithmic Foundation of Genome Assembly*, Faculty of Science, Deemed University Dayalbagh Educational Institute, Agra, India, 18.-18.10.2014

Anand Srivastav, *Algorithmic Foundation of Genome Assembly*, Annual Meeting DFG SPP 1736 *Algorithms for Big Data*, Wolfgang Goethe-Universität Frankfurt am Main, Germany, 29.09.-01.10.2014

Anand Srivastav, *An evolutionary algorithm for parameter optimization for marine CO2 productions*, DFG-Indo-German Workshop on, Agra, India, 18.-18.01.2013

Anand Srivastav, Lasse Kliemann, *Streaming Algorithms and Parallel Evolutionary Computation in Large Graphs and Hypergraphs*, DFG-Big Data Workshop, Uni Frankfurt, Frankfurt, Germany, 04.-04.03.2013

Anand Srivastav, *Randomized Approximation of b-Matching in Hypergraphs*, 16th International Conference on random Structures and Algorithms, Posznan, Poland, 07.-07.08.2013

Anand Srivastav, *Approximation of the b-Matching in Hypergraphs*, Indian Institute of Technology, Department of Computer Science, New Delhi, India, 17.-17.09.2013

Anand Srivastav, *The Set Covering Problem in Hypergraphs*, Indian Institute of Technology, Department of Computer Science, New Delhi, India, 24.-24.09.2013

Anand Srivastav, *Topics in Random Graph Theory, 6 lectures*, Indian Institute of Technology, New Delhi and Dayalbagh Educational Institute, New Delhi and Agra, India, 02.-25.09.2013

Anand Srivastav, *Low Discrepancy Computations*, Dayalbagh Educational Institute, Deemed University, Agra, India, 08.-08.07.2013

Anand Srivastav, *Parallel Quantum Evolutionary Algorithms*, Dayalbagh Educational Institute, Deemed University, Agra, India, 07.-07.02.2013

Anand Srivastav, Lasse Kliemann, *$(1+1/k)$ -Approximate Maximum Matching in Bipartite Graph Streams in $O(k_5)$ Passes and Improvements*, ISMP 2012, Berlin, 21.-24.08.2012

Anand Srivastav, *Algorithm Engineering*, Dept. of Mathematics, Dayalbagh Educational Institute, Deemed University Agra, Agra, Indien, 23.01.2008

Anand Srivastav, *Approximation Algorithms for Matching in Hypergraphs*, Dept. of Mathematics, Dayalbagh Educational Institute, Deemed University Agra, Agra, Indien, 18.03.2008

Anand Srivastav, *Modelling of Mobile Networks*, Dept. of Computer Science, Chalmers University, Göteborg, Schweden, 31.03.2008

Anand Srivastav, *Streaming Algorithms for Bipartite Matching in Graphs*, Forschungsinstitut für Diskrete Mathematik, Universität Bonn, Bonn, 02.05.2008

Anand Srivastav, *Minimum-Weight Hypergraph-Matching*, Institut für Informatik, FU Berlin, Berlin, 13.06.2008

Anand Srivastav, *Low-Discrepancy Coloring of Arithmetic Progressions*, Berlin-Poznan-Seminar, Humboldt Universität Berlin, Berlin, 20.-21.06.2008

Anand Srivastav, *Discrepancy of Arithmetic Structures*, Dept. of Mathematics, University of Milano-Bicocca, Mailand, Italien, 08.07.2008

Anand Srivastav, *Approximation of Stochastic Programs*, Dept. of Computer Science, Chalmers University, Göteborg, Schweden, 21.07.2008

Anand Srivastav, *Nash-Equilibria in Multicast Routing*, Forschungsinstitut für Diskrete Mathematik, Universität Bonn, Bonn, 01.09.2008

Anand Srivastav, *Evolutionary Computing of Low-Discrepancy Colorings for Arithmetic Progressions*, Faculty of Engineering, Dayalbagh Educational Institute, Deemed University, Agra, Indien, 21.10.2008

Anand Srivastav, *Efficient Algorithms for Hard Combinatorial Problems*, Indo-US Advanced School on Quantum and Nano Computing Systems and Applications (QUANSAS 2008), Agra, Indien, 11.-14.12.2008

Anand Srivastav, *Graph Theory in Recent Algorithmic Advances*, International Conference on Differential Geometry and Topology in Perspective of Modern Trends, Agra, Indien, 18.-19.02.2006

Anand Srivastav, *Lower bound proofs for hypergraph discrepancy*, Jahrestagung der Deutschen Mathematiker-Vereinigung, Bonn, Deutschland, 18.-22.09.2006

Anand Srivastav, *Euclidean nearest neighbor problems for random points*, Jahrestagung der Deutschen Mathematiker-Vereinigung, Bonn, Deutschland, 18.-22.09.2006

Anand Srivastav, *Low discrepancy colorings of additive structures*, Kolloquium über Kombinatorik, Magdeburg, Deutschland, 16.11.2006

Publications

Books:

William W. L. Chen, Anand Srivastav, Gioncarlo Travaglini, *A Panorama of Discrepancy Theory*, Springer-Verlag, 681 pages, 2014.

Submitted:

Lasse Kliemann, Jan Schiemann, Anand Srivastav: *Finding Euler Tours in the StrSort Model*. CoRR abs/1610.03412 (2016)

Mourad El Ouali, Christian Glazik, Volkmar Sauerland, Anand Srivastav: *On the Query Complexity of Black-Peg AB-Mastermind*. CoRR abs/1611.05907 (2016)

Axel Wedemeyer, Lasse Kliemann, Anand Srivastav, Christian Schielke, Thorsten Reusch, Philip Rosenstiel. *An Improved Filtering Algorithm for Big Read Datasets*. arXiv:1610.03443 [q-bio.GN] (2016). Submitted to BMC Bioinformatics

Peer-Reviewed Articles in Journals, Conference Proceedings and Books:

2017

Lasse Kliemann, Elmira Shirazi Sheykhdarabadi, Anand Srivastav: *Swap Equilibria under Link and Vertex Destruction*. Games 8(1), 14; doi:10.3390/g8010014 (registering DOI) .

Lasse Kliemann, Elmira Shirazi Sheykhdarabadi, Anand Srivastav: *Price of anarchy for graph coloring games with concave payoff*. Journal of Dynamics and Games (JDG) 4(1):41-58 (2017). DOI:10.3934/jdg.2017003

Iris Kriest, Volkmar Sauerland, Samar Khatiwala, Anand Srivastav and Andreas Oschlies: *Calibrating a global three-dimensional biogeochemical ocean model (MOPS-1.0)*. Geoscientific Model Development 10(1): 127-154 (2017). DOI:10.5194/gmd-10-127-2017

2016

Mourad El Ouali, Peter Munstermann, Anand Srivastav: *Randomized Approximation for the Set Multicover Problem in Hypergraphs*. Algorithmica 74(2): 574-588 (2016). DOI:10.1007/s00453-014-9962-9

Mourad El Ouali, Helena Fohlin, Anand Srivastav: *An approximation algorithm for the partial vertex cover problem in hypergraphs*. Journal of Combinatorial Optimization 31(2): 846-864 (2016). DOI:10.1007/s10878-014-9793-2

C. Patvardhan, Sulabh Bansal, Anand Srivastav: *Parallel improved quantum inspired evolutionary algorithm to solve large size Quadratic Knapsack Problems*. *Swarm and Evolutionary Computation* 26: 175-190 (2016). DOI:10.1016/j.swevo.2015.09.005

Lasse Kliemann, Christian Schielke, Anand Srivastav: *A Streaming Algorithm for the Undirected Longest Path Problem*. *Proceedings of the 24th Annual European Symposium on Algorithms*, Aarhus, Denmark, August 2016 (ESA 2016), pages 56:1–56:17 (2016). DOI:10.4230/LIPIcs.ESA.2016.56

2015

Andreas Baltz, Mourad El Ouali, Gerold Jäger, Volkmar Sauerland, Anand Srivastav. *Exact and heuristic algorithms for the Travelling Salesman Problem with Multiple Time Windows and Hotel Selection*. *Journal of the Operational Research Society* 66(4): 615-626 (2015). DOI:10.1057/jors.2014.17

C Patvardhan, Sulabh Bansal, Anand Srivastav: *Quantum-Inspired Evolutionary Algorithm for Difficult Knapsack Problems*. *Memetic Computing* 7(2):135-155 (2015). DOI:10.1007/s12293-015-0162-1

C Patvardhan, Sulabh Bansal, Anand Srivastav: *Solving the 0-1 Quadratic Knapsack Problem with a competitive Quantum Inspired Evolutionary Algorithm*. *Journal of Computational and Applied Mathematics* 285:86-99 (2015). DOI:10.1016/j.cam.2015.02.016

C Patvardhan, Sulabh Bansal, Anand Srivastav: *Towards right amount of randomness in Quantum-inspired Evolutionary Algorithms*. *Soft Computing* 2015:1-20 (2015). DOI:10.1007/s00500-015-1880-5

C Patvardhan, Prem Prakash, Anand Srivastav: *Fast Heuristics for large instances of the Euclidean Bounded Diameter Minimum Spanning tree problem*. *Informatica* 39:281-292 (2015)

2014

Mourad El Ouali, Helena Fohlin, Anand Srivastav: *A randomised approximation algorithm for the hitting set problem*. *Theoretical Computer Science* 555: 23-34 (2014). DOI:10.1016/j.tcs.2014.03.029

Nils Hebbinghaus, Anand Srivastav: *Discrepancy of Centered Arithmetic Progressions in Z_p* . *European Journal of Combinatorics* 35:324-334 (2014)

C Patvardhan, Prem Prakash, Anand Srivastav: *Parallel Heuristics for the Bounded Diameter Minimum Spanning Tree Problem*. *Proceedings of the 11th IEEE India Conference (INDICON 2014)*, Pune, December 2014, 5 pages. DOI:10.1109/INDICON.2014.7030575

C Patvardhan, Sulabh Bansal, Anand Srivastav: *Balanced Quantum-Inspired Evolutionary Algorithm for Multiple Knapsack Problem*. *International Journal of Intelligent Systems and Applications* 11:1-11 (2014). DOI:10.5815/ijisa.2014.11.01

C Patvardhan, Sulabh Bansal, Anand Srivastav: *Solution of 'hard' knapsack instances using Quantum Inspired Evolutionary Algorithm*. *International Journal of Applied Evolutionary Computation* 5(1):52-68 (2014). DOI:10.4018/ijaec.2014010104

Nils Hebbinghaus, Anand Srivastav: *Multicolor discrepancy of arithmetic structures*. In: A Panorama of Discrepancy Theory. Ed. by William W. L. Chen, Anand Srivastav, and Giancarlo Travaglini. Volume 2107 of the series Lecture Notes in Mathematics pp 319-424 Springer-Verlag (2014)

2013

Lasse Kliemann, Anand Srivastav: *Deutsch-indische Kooperation im Algorithm Engineering*. Informatik Spektrum 36(2): 180-186 (2013). DOI:10.1007/s00287-013-0680-5

Mourad El Ouali, Helena Fohlin, Anand Srivastav: *A randomised approximation algorithm for the hitting set problem*. Proceedings of the 7th International Workshop on Algorithms and Computation, Kharagpur, India, February 2013 (WALCOM 2013). Lecture Notes in Computer Science 7748:101–113 (2013). DOI:10.1007/978-3-642-36065-7_11

Lasse Kliemann, Ole Kliemann, C. Patvardhan, Volkmar Sauerland, Anand Srivastav: *A new QEA computing near-optimal low-discrepancy colorings in the hypergraph of arithmetic progressions*. Proceedings of the 12th International Symposium on Experimental and Efficient Algorithms, Rome, Italy, June 2013 (SEA 2013). Lecture Notes in Computer Science 7933: 67–78 (2013). DOI:10.1007/978-3-642-38527-8_8

2012

Sebastian Eggert, Lasse Kliemann, Peter Munstermann, Anand Srivastav: *Bipartite Matching in the Semi-streaming Model*. Algorithmica 63(1-2): 490-508 (2012). DOI:10.1007/s00453-011-9556-8

Mourad El Ouali, Helena Fohlin, Anand Srivastav: *A randomised approximation algorithm for the partial vertex cover problem in hypergraphs*. Proceedings of the 1st Mediterranean Conference on Algorithms, Kibbutz Ein Gedi, Isreal, December 2012 (MedAlg 2012). Lecture Notes in Computer Science 7659: 174–187 (2012). DOI:10.1007/978-3-642-34862-4_13

C. Patvardhan, Prem Prakash, Anand Srivastav: *Novel quantum-inspired evolutionary algorithm for the quadratic knapsack problem*. International Journal of Mathematics in Operational Research 4(2):114–127 (2012). DOI:10.1504/IJMOR.2012.046373

2011

Nils Hebbinghaus, Anand Srivastav: *Discrepancy of Centered Arithmetic Progressions in Z_p* . Electronic Notes in Discrete Mathematics 38: 449-456 (2011)

Mourad El Ouali, Antje Fretwurst, Anand Srivastav: *Inapproximability of b -Matching in k -uniform Hypergraphs*. Proceedings of the 5th International Workshop on Algorithms and Computation (WALCOM 2011). Springer Lecture Notes in Computer Science 6552: 57–69 (2011). DOI:10.1007/978-3-642-19094-0_8

2010

C. Patvardhan, Johannes Rückelt, Volkmar Sauerland, Thomas Slawig, Anand Srivastav, Ben Ward: *Parameter Optimization and Uncertainty Analysis in a Model of Oceanic CO₂-Uptake using a Hybrid Algorithm and Algorithmic Differentiation*. Nonlinear Analysis B: Real World Applications 11:3992–4009 (2010). DOI:10.1016/j.nonrwa.2010.03.006

Anna Heinle, Andreas Macke, Anand Srivastav: *Automatic cloud classification of the whole sky images*. Atmospheric Measurement Techniques 3:269–299 (2010). DOI:10.5194/amt-3-557-2010

2009

Andreas Baltz, Anand Srivastav: *Multicast routing and design of sparse connectors*. In: *Algorithmics of Large and Complex Networks*. Ed. by Jürgen Lerner, Dorothea Wagner, Katharina Zweig, Springer Lecture Notes in Computer Science 5515: 247–265 (2009). DOI:10.1007/978-3-642-02094-0_12

Nils Hebbinghaus, Tomasz Schoen, Anand Srivastav: *One-Sided Discrepancy of linear hyperplanes in finite vector spaces*. In: *Analytic Number Theory, Essays in Honour of Klaus Roth*. Ed. by William W. L. Chen, William T. Gowers, Heini Halberstam, Wolfgang M. Schmidt, Robert Charles Vaughan, Cambridge University Press, Cambridge 2009.

Lasse Kliemann, Anand Srivastav: *Models of Non-atomic Congestion Games – From Unicast to Multicast Routing*. In: *Algorithmics of Large and Complex Networks*. Ed. by Jürgen Lerner, Dorothea Wagner, Katharina Zweig, Springer Lecture Notes in Computer Science 5515: 292–318 (2009)

C. Patvardhan, Volkmar Sauerland, Anand Srivastav: *Systemic studies on large scale natural systems: An efficient quantum evolutionary algorithm for marine CO₂-simulation*. Proceedings of the International Conference on Applied Systems Research, Dayalbagh Educational Institute, Agra, India (NSC 2009), pages 44-47 (2009)

C. Patvardhan, Prem Prakash, Anand Srivastav: *A novel quantum-inspired evolutionary algorithm for the quadratic knapsack problem*. Proceedings of the International Conference on Operations Research Applications. Engineering And Management, Tiruchirappalli, India, May 2009 (ICOREM 2009), pages 2061-2064 (2009). Best OR Application in Engineering Award, sponsored by the Anna University, Tiruchirappalli. Accepted at the International Journal of Mathematics in Operations Research.

Sebastian Eggert, Lasse Kliemann, Anand Srivastav: *Bipartite Graph Matchings in the Semi-Streaming Model*. Proceedings of the 17th European Symposium on Algorithms, Copenhagen, Denmark, September 2009 (ESA 2009). Springer Lecture Notes in Computer Science 5757: 492–503 (2009). DOI:10.1007/978-3-642-04128-0_44

Lasse Kliemann, Anand Srivastav: *Experimental Study of Non-Oblivious Greedy and Randomized Rounding Algorithms for Hypergraph b -Matching*. Proceedings of the 8th International Symposium on Experimental and Efficient Algorithms, Dortmund, Germany, June 2009 (SEA 2009). Springer Lecture Notes in Computer Science 5526: 185–196 (2009)

Michael Gnewuch, Anand Srivastav, Carola Winzen: *Finding optimal volume subintervals with k points and calculating the star discrepancy are NP-hard problems*. *Journal of Complexity* 25(2): 115–127 (2009). DOI:10.1016/j.jco.2008.10.001

2008

Helena Fohlin, Lasse Kliemann, Anand Srivastav: *Randomized Algorithms for Mixed Matching and Covering Problems in Brachytherapy*. *Optimization in Medicine*. Ed. by Carlos J. S. Alves, Panos M. Pardalos, Luis N. Vicente, Springer, 2008. DOI:10.1007/978-0-387-73299-2_4

2007

Lasse Kliemann, Anand Srivastav: *Parallel Algorithms via the Probabilistic Method*. Parallel Computing: Models, Algorithms, and Applications. Ed. by Sanguthevar Rajasekaran, John H. Reif, Chapman & Hall/CRC, chapter 18, 18-1 to 18-61 (2007)

Michael Gnewuch, René Lindloh, Reinhold Schneider, Anand Srivastav: *Cubature formulas for function spaces with moderate smoothness*. Journal of Complexity 23(4-6): 828-850 (2007). DOI:10.1016/j.jco.2007.07.002

Ulrich Heute, Jörg Kliewer, Volkmar Sauerland, Anand Srivastav: *Fixed-Point FIR filters and filter banks: improved design by randomized quantizations*. Proceedings of the 20th IEEE International Symposium on Signal Processing and its Applications, Sharjah, U.A.E., February 2007 (ISSPA 2007), pages 244-248 (2007)

Gerold Jäger, Anand Srivastav, Katja Wolf: *Solving Generalized Maximum Dispersion with Linear Programming*. Proceedings of the 3rd International Conference on Algorithmic Aspects in Information and Management, Portland, OR, USA, June 2007 (AAIM 2007). Springer Lecture Notes in Computer Science 4508: 1-10 (2007). DOI:10.1007/978-3-540-72870-2_1

C. Patvardhan, Apurva Nayaran, Anand Srivastav: *Enhanced quantum evolutionary algorithm for difficult knapsack problems*. Proceedings of the 2nd International Conference on Pattern Recognition and Machine Intelligence, Premi 2007, Indian Statistical Institute, Kolkata, India. Springer Lecture Notes in Computer Science 4814: 252–260 (2007). DOI:10.1007/978-3-540-77046-6_31

Anand Srivastav, Sören Werth: *Probabilistic Analysis of the Degree Bounded Minimum Spanning Tree Problem*. Proceedings of the 27th International Conference on Software Technology and Theoretical Computer Science, New Delhi, India, December 2007 (FSTTCS 2007). Springer Lecture Notes in Computer Science 4855: 497-507 (2007). DOI:10.1007/978-3-540-77050-3_41

Nitin Ahuja, Andreas Baltz, Benjamin Doerr, Ales Privetivy, Anand Srivastav: *On the Minimum Load Coloring Problem*. Journal of Discrete Algorithms 5(3):533–545 (2007). DOI:10.1016/j.jda.2006.09.001

Andreas Baltz, Devdatt Dubhashi, Anand Srivastav, Libertad Tansini, Sören Werth: *Probabilistic Analysis for a Multiple Depot Vehicle Routing Problem*. Random Structures and Algorithms 30(1-2): 206-225 (2007). DOI:10.1002/rsa.20156

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