

## Call For Papers University Columbia 2014

Symposium held in Miami, Florida, January 22–24, 2006. This symposium is jointly sponsored by the ACM Special Interest Group on Algorithms and Computation Theory and the SIAM Activity Group on Discrete Mathematics. Contents Preface; Acknowledgments; Session 1A: Confronting Hardness Using a Hybrid Approach, Virginia Vassilevska, Ryan Williams, and Shan Leung Maverick Woo; A New Approach to Proving Upper Bounds for MAX-2-SAT, Arist Kojevnikov and Alexander S. Kulikov, Measure and Conquer: A Simple  $O(20.288^n)$  Independent Set Algorithm, Fedor V. Fomin, Fabrizio Grandoni, and Dieter Kratsch; A Polynomial Algorithm to Find an Independent Set of Maximum Weight in a Fork-Free Graph, Vadim V. Lozin and Martin Milanic; The Knuth-Yao Quadrangle-Inequality Speedup is a Consequence of Total-Monotonicity, Wolfgang W. Bein, Mordecai J. Golin, Larry L. 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Woeginger; Upper Degree-Constrained Partial Orientations, Harold N. Gabow; Session 7A: On the Tandem Duplication-Random Loss Model of Genome Rearrangement, Kamalika Chaudhuri, Kevin Chen, Radu Mihaescu, and Satish Rao; Reducing Tile Complexity for Self-Assembly Through Temperature Programming, Ming-Yang Kao and Robert Schweller; Cache-Oblivious String Dictionaries, Gerth Stølting Brodal and Rolf Fagerberg; Cache-Oblivious Dynamic Programming, Rezaul Alam Chowdhury and Vijaya Ramachandran; A Computational Study of External-Memory BFS Algorithms, Deepak Ajwani, Roman Dementiev, and Ulrich Meyer; Session 7B: Tight Approximation Algorithms for Maximum General Assignment Problems, Lisa Fleischer, Michel X. Goemans, Vahab S. Mirrokni, and Maxim Sviridenko; Approximating the  $k$ -Multicut Problem, Daniel Golovin, Viswanath Nagarajan, and Mohit Singh; The Prize-Collecting Generalized Steiner Tree Problem Via A New Approach Of Primal-Dual Schema, Mohammad Taghi Hajiaghayi and Kamal Jain; 8/7-Approximation Algorithm for (1,2)-TSP, Piotr Berman and Marek Karpinski; Improved Lower and Upper Bounds for Universal TSP in Planar Metrics, Mohammad T. Hajiaghayi, Robert Kleinberg, and Tom Leighton; Session 7C: Leontief Economies Encode NonZero Sum Two-Player Games, B. Codenotti, A. Saberi, K. Varadarajan, and Y. Ye; Bottleneck Links, Variable Demand, and the Tragedy of the Commons, Richard Cole, Yevgeniy Dodis, and Tim Roughgarden; The Complexity of Quantitative Concurrent Parity Games, Krishnendu Chatterjee, Luca de Alfaro, and Thomas A. Henzinger; Equilibria for Economies with Production: Constant>Returns Technologies and Production Planning Constraints, Kamal Jain and Kasturi Varadarajan; Session 8A: Approximation Algorithms for Wavelet Transform Coding of Data Streams, Sudipto Guha and Boulos Harb; Simpler Algorithm for Estimating Frequency Moments of Data Streams, Lakshimath Bhuvanagiri, Sumit Ganguly, Deepanjan Kesh, and Chandan Saha; Trading Off Space for Passes in Graph Streaming Problems, Camil Demetrescu, Irene Finocchi, and Andrea Ribichini; Maintaining Significant Stream Statistics over Sliding Windows, L.K. Lee and H.F. Ting; Streaming and Sublinear Approximation of Entropy and Information Distances, Sudipto Guha, Andrew McGregor, and Suresh Venkatasubramanian; Session 8B: FPTAS for Mixed-Integer Polynomial Optimization with a Fixed Number of Variables, J. A. De Loera, R. Hemmecke, M. Köppe, and R. Weismantel; Linear Programming and Unique Sink Orientations, Bernd Gärtner and Ingo Schurr; Generating All Vertices of a Polyhedron is Hard, Leonid Khachiyan, Endre Boros, Konrad Borys, Khaled Elbassioni, and Vladimir Gurvich; A Semidefinite Programming Approach to Tensegrity Theory and Realizability of Graphs, Anthony Man-Cho So and Yinyu Ye; Ordering by Weighted Number of Wins Gives a Good Ranking for Weighted Tournaments, Don Coppersmith, Lisa Fleischer, and Atri Rudra; Session 8C: Weighted Isotonic Regression under L1 Norm, Stanislav Angelov, Boulos Harb, Sampath Kannan, and Li-San Wang; Oblivious String Embeddings and Edit Distance Approximations, Tugkan Batu, Funda Ergun, and Cenk Sahinalp0898716012\\This comprehensive book not only introduces the C and C++ programming languages but also shows how to use them in the numerical solution of partial differential equations (PDEs). It leads the reader through the entire solution process, from the original PDE, through the discretization stage, to the numerical solution of the resulting algebraic system. The well-debugged and tested code segments implement the numerical methods efficiently and transparently. Basic and advanced numerical methods are introduced and implemented easily and efficiently in a unified object-oriented approach.

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Shattered Bonds is a stirring account of a worsening American social crisis--the disproportionate representation of black children in the U.S. foster care system and its effects on black communities and the country as a whole. Tying the origins and impact of this disparity to racial injustice, Dorothy Roberts contends that child-welfare policy reflects a political choice to address startling rates of black child poverty by punishing parents instead of tackling poverty's societal roots. Using conversations with mothers battling the Chicago child-welfare system for custody of their children, along with national data, Roberts levels a powerful indictment of racial disparities in foster care and tells a moving story of the women and children who earn our respect in their fight to keep their families intact.

The New York Times best-selling book exploring the counterproductive reactions white people have when their assumptions about race are challenged, and how these reactions maintain racial inequality. In this "vital, necessary, and beautiful book" (Michael Eric Dyson), antiracist educator Robin DiAngelo deftly illuminates the phenomenon of white fragility and "allows us to understand racism as a practice not restricted to 'bad people' (Claudia Rankine). Referring to the defensive moves that white people make when challenged racially, white fragility is characterized by emotions such as anger, fear, and guilt, and by behaviors including argumentation and silence. These behaviors, in turn, function to reinstate white racial equilibrium and prevent any meaningful cross-racial dialogue. In this in-depth exploration, DiAngelo examines how white fragility develops, how it protects racial inequality, and what we can do to engage more constructively.

Advances in artificial intelligence (AI) highlight the potential of this technology to affect productivity, growth, inequality, market power, innovation, and employment. This volume seeks to set the agenda for economic research on the impact of AI. It covers four broad themes: AI as a general purpose technology; the relationships between AI, growth, jobs, and inequality; regulatory responses to changes brought on by AI; and the effects of AI on the way economic research is conducted. It explores the economic influence of machine learning, the branch of computational statistics that has driven much of the recent excitement around AI, as well as the economic impact of robotics and automation and the potential economic consequences of a still-hypothetical artificial general intelligence. The volume provides frameworks for understanding the economic impact of AI and



identifies a number of open research questions. Contributors: Daron Acemoglu, Massachusetts Institute of Technology Philippe Aghion, Collège de France Ajay Agrawal, University of Toronto Susan Athey, Stanford University James Bessen, Boston University School of Law Erik Brynjolfsson, MIT Sloan School of Management Colin F. Camerer, California Institute of Technology Judith Chevalier, Yale School of Management Iain M. Cockburn, Boston University Tyler Cowen, George Mason University Jason Furman, Harvard Kennedy School Patrick Francois, University of British Columbia Alberto Galasso, University of Toronto Joshua Gans, University of Toronto Avi Goldfarb, University of Toronto Austan Goolsbee, University of Chicago Booth School of Business Rebecca Henderson, Harvard Business School Ginger Zhe Jin, University of Maryland Benjamin F. Jones, Northwestern University Charles I. Jones, Stanford University Daniel Kahneman, Princeton University Anton Korinek, Johns Hopkins University Mara Lederman, University of Toronto Hong Luo, Harvard Business School John McHale, National University of Ireland Paul R. Milgrom, Stanford University Matthew Mitchell, University of Toronto Alexander Oettl, Georgia Institute of Technology Andrea Prat, Columbia Business School Manav Raj, New York University Pascual Restrepo, Boston University Daniel Rock, MIT Sloan School of Management Jeffrey D. Sachs, Columbia University Robert Seamans, New York University Scott Stern, MIT Sloan School of Management Betsey Stevenson, University of Michigan Joseph E. Stiglitz, Columbia University Chad Syverson, University of Chicago Booth School of Business Matt Taddy, University of Chicago Booth School of Business Steven Tadelis, University of California, Berkeley Manuel Trajtenberg, Tel Aviv University Daniel Trefler, University of Toronto Catherine Tucker, MIT Sloan School of Management Hal Varian, University of California, Berkeley

Mentally ill people turned out of institutions, crack-cocaine use on the rise, more poverty, public housing a shambles: as attempts to explain homelessness multiply so do the homeless--and we still don't know why. The first full-scale economic analysis of homelessness, *Making Room* provides answers quite unlike those offered so far by sociologists and pundits. It is a story about markets, not about the bad habits or pathology of individuals. One perplexing fact is that, though homelessness in the past occurred during economic depressions, the current wave started in the 1980s, a time of relative prosperity. As Brendan O'Flaherty points out, this trend has been accompanied by others just as unexpected: rising rents for poor people and continued housing abandonment. These are among the many disconcerting facts that O'Flaherty collected and analyzed in order to account for the new homelessness. Focused on six cities (New York, Newark, Chicago, Toronto, London, and Hamburg), his studies also document the differing rates of homelessness in North America and Europe, and from one city to the next, as well as interesting changes in the composition of homeless populations. For the first time, too, a scholarly observer makes a useful distinction between the homeless people we encounter on the streets every day and those "officially" counted as homeless. O'Flaherty shows that the conflicting observations begin to make sense when we see the new homelessness as a response to changes in the housing market, linked to a widening gap in the incomes of rich and poor. The resulting shrinkage in the size of the middle class has meant fewer hand-me-downs for the poor and higher rents for the low-quality housing that is available. O'Flaherty's tightly argued theory, along with the wealth of new data he introduces, will put the study of homelessness on an entirely new plane. No future student or policymaker will be able to ignore the economic f

Advanced degrees are necessary for careers that once required only a college education. Yet little has been written about who gets into grad school and why. Julie Posselt pulls back the curtain on this secret process, revealing how faculty evaluate applicants in top-ranked doctoral programs in the humanities, social sciences, and natural sciences.

This introductory but innovative textbook on the economics of cities is aimed at students of urban and regional policy as well as of undergraduate economics. It deals with standard topics, including automobiles, mass transit, pollution, housing, and education but it also discusses non-standard topics such as segregation, water supply, sewers, garbage, fire prevention, housing codes, homelessness, crime, illicit drugs, and economic development.

Due to its internationality and interdisciplinarity, the International Oral History Association (IOHA), which was founded in the late 1970's, is one-of-a-kind in the academic landscape. Driven by the desire to democratize historical scholarship, its members wanted to "give a voice" to groups such as women, workers, migrants, or victims of political dictatorships who had not been heard up to that point. The contributions deal with the academic approaches and the political convictions of the previous generation.

The inspiring, unlikely story of the American, Canadian, South Korean and even North Korean women who joined together to form Korea's first Olympic ice hockey team. Two weeks before the opening ceremony of the 2018 Winter Olympics, South Korea's women's hockey team was forced into a predicament that no president, ambassador or general had been able to resolve in the sixty-five years since the end of the Korean War. Against all odds, the group of young women were able to bring North and South Korea closer than ever before. The team was built for this moment. They had been brought together from across the globe and from a wide variety of backgrounds—concert pianist, actress, high school student, convenience store worker—to make history. Now the special kinship they had developed would guide them through the biggest challenge of their careers. Suddenly thrust into an international spotlight, they showed the powerful meaning of what a unified Korea could resemble. In *A Team of Their Own*, Seth Berkman goes behind the scenes to tell the story of these young women as they became a team amid immense political pressure and personal turmoil, and ultimately gained worldwide acceptance on a journey that encapsulates the truest meanings of sport and family.

*Historical Justice and Memory* highlights the global movement for historical justice—acknowledging and redressing historic wrongs—as one of the most significant moral and social developments of our times. Such historic wrongs include acts of genocide, slavery, systems of apartheid, the systematic persecution of presumed enemies of the state, colonialism, and the oppression of or discrimination against ethnic or religious minorities. The historical justice movement has inspired the spread of truth and reconciliation processes around the world and has pushed governments to make reparations and apologies for past wrongs. It has changed the public understanding of justice and the role of memory. In this book, leading scholars in philosophy, history, political science, and semiotics offer new essays that discuss and assess these momentous global developments. They evaluate the strength and weaknesses of the movement, its accomplishments and failings, its philosophical assumptions and social preconditions, and its prospects for the future.

Contains paper solicitation notices for conferences and workshops run by Martha Fineman at Columbia University and, chiefly, as part of the Feminism and Legal Theory Project at the Emory University School of Law.

Transcultural management ; Management styles ; Intercultural communication.

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