Stanford

Christopher Re

Professor of Computer Science

Bio

BIO

Christopher (Chris) Re is a professor in the Department of Computer Science at Stanford University. He is in the Stanford AI Lab and is affiliated with the Machine Learning Group and the Center for Research on Foundation Models. His recent work is to understand how software and hardware systems will change because of machine learning along with a continuing, petulant drive to work on math problems. Research from his group has been incorporated into scientific efforts, finding extrasolar neutrinos or developing Evo, a DNA foundation model, and humanitarian efforts, such as the fight against human trafficking. His work is used in products from companies including Apple, Google, YouTube, and more. His friends let him tag along to found companies while they did the hard work of building them. He loves investing in technology companies and built a firm to do more of it.

His family still brags that he received the MacArthur Foundation Fellowship, but his closest friends are confident that it was a mistake. His research contributions have spanned database theory, database systems, and machine learning, and his work has won best paper at a premier venue in each area, respectively, at PODS 2012, SIGMOD 2014, and ICML 2016. Due to great collaborators, he received the NeurIPS 2020 test-of-time award and the PODS 2022 test-of-time award. Due to great students, he received best paper at MIDL 2022, best paper runner up at ICLR22 and ICML22, and best student-paper runner up at UAI22.

ACADEMIC APPOINTMENTS

- Professor, Computer Science
- Member, Bio-X
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)

LINKS

- My homepage: http://cs.stanford.edu/people/chrismre/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Algorithms, systems, and theory for the next generation of data processing and data analytics systems.

Teaching

COURSES

2025-26

- Machine Learning: CS 229, STATS 229 (Spr)

2022-23

- Advances in Foundation Models: CS 324 (Win)

- Machine Learning: CS 229, STATS 229 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Advisor (AC)

Mayee Chen, Neel Guha, Jerry Liu, Avanika Narayan

Orals Evaluator

Mayee Chen, Avanika Narayan

Master's Program Advisor

Adrian Adegbesan, Sahithi Ankireddy, Ali Ansari, David Anugraha, Ronald Junkins, Yufei Liu, Jayson Meribe, Sathvik Nallamalli, Raj Palleti, Max Rodriguez, Stephen Su, Kenna Zeng, Richard Zhuang

Doctoral Dissertation Co-Advisor (AC)

Yasa Baig, Francois Chaubard, Jordan Juravsky, Divya Nori, Jon Saad-Falcon

Doctoral Dissertation Co-Advisor (NonAC)

Krista Opsahl-Ong

Doctoral (Program)

Mayee Chen, Owen Dugan, Neel Guha, Hermann Kumbong, Avanika Narayan, Benjamin Spector, Michael Zhang

Publications

PUBLICATIONS

- **Extracting chemical reactions from text using Snorkel.** *BMC bioinformatics*
  Mallory, E. K., de Rochemonteix, M. n., Ratner, A. n., Acharya, A. n., Re, C. n., Bright, R. A., Altman, R. B.
  2020; 21 (1): 217
- **Assessment of Convolutional Neural Networks for Automated Classification of Chest Radiographs.** *Radiology*
  Dunnmon, J. A., Yi, D., Langlotz, C. P., Re, C., Rubin, D. L., Lungren, M. P.
  2018: 181422
- **Snuba: Automating Weak Supervision to Label Training Data** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Varma, P., Re, C.
  2018; 12 (3): 223–36
- **Research for Practice: Knowledge Base Construction in the Machine Learning Era** *COMMUNICATIONS OF THE ACM*
  Ratner, A., Re, C.
  2018; 61 (11): 95–97
- **A Relational Framework for Classifier Engineering**
  Kimelfeld, B., Re, C.
  ASSOC COMPUTING MACHINERY.2018
- **A Cloud-Based Metabolite and Chemical Prioritization System for the Biology/Disease-Driven Human Proteome Project.** *Journal of proteome research*
  Yu, K., Lee, T. M., Chen, Y., Re, C., Kou, S. C., Chiang, J., Snyder, M., Kohane, I. S.
  2018
- **Fonduer: Knowledge Base Construction from Richly Formatted Data.** *Proceedings. ACM-Sigmod International Conference on Management of Data*
  Wu, S., Hsiao, L., Cheng, X., Hancock, B., Rekatsinas, T., Levis, P., Re, C.
  2018; 2018: 1301–16

- **It's All a Matter of Degree Using Degree Information to Optimize Multiway Joins** *THEORY OF COMPUTING SYSTEMS*
  Joglekar, M., Re, C.
  2018; 62 (4): 810–53
- **Systematic Protein Prioritization for Targeted Proteomics Studies through Literature Mining** *JOURNAL OF PROTEOME RESEARCH*
  Yu, K., Lee, T., Wan, C., Chen, Y., Re, C., Kou, S. C., Chiang, J., Kohane, I. S., Snyder, M.
  2018; 17 (4): 1383–96
- **Worst-case Optimal Join Algorithms** *JOURNAL OF THE ACM*
  Ngo, H. Q., Porat, E., Re, C., Rudra, A.
  2018; 65 (3)
- **A Relational Framework for Classifier Engineering** *SIGMOD RECORD*
  Kimelfeld, B., Re, C.
  2018; 47 (1): 6–13
- **Weighted SGD for l(p) Regression with Randomized Preconditioning** *JOURNAL OF MACHINE LEARNING RESEARCH*
  Yang, J., Chow, Y., Re, C., Mahoney, M. W.
  2018; 18
- **Software 2.0 and Snorkel: Beyond Hand-Labeled Data**
  Re, C., ACM
  ASSOC COMPUTING MACHINERY.2018: 2876
- **Association of Omics Features with Histopathology Patterns in Lung Adenocarcinoma** *CELL SYSTEMS*
  Yu, K., Berry, G. J., Rubin, D. L., Re, C., Altman, R. B., Snyder, M.
  2017; 5 (6): 620-+
- **Inferring Generative Model Structure with Static Analysis.** *Advances in neural information processing systems*
  Varma, P., He, B., Bajaj, P., Banerjee, I., Khandwala, N., Rubin, D. L., Re, C.
  2017; 30: 239–49
- **Gaussian Quadrature for Kernel Features.** *Advances in neural information processing systems*
  Dao, T., De Sa, C., Re, C.
  2017; 30: 6109–19
- **Learning to Compose Domain-Specific Transformations for Data Augmentation.** *Advances in neural information processing systems*
  Ratner, A. J., Ehrenberg, H. R., Hussain, Z., Dunnmon, J., Re, C.
  2017; 30: 3239–49
- **Snorkel: Rapid Training Data Creation with Weak Supervision** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Ratner, A., Bach, S. H., Ehrenberg, H., Fries, J., Wu, S., Re, C.
  2017; 11 (3): 269–82
- **EmptyHeaded: A Relational Engine for Graph Processing**
  Aberger, C. R., Lamb, A., Tu, S., Noetzli, A., Olukotun, K., Re, C.
  ASSOC COMPUTING MACHINERY.2017
- **Mind the Gap: Bridging Multi-Domain Query Workloads with EmptyHeaded** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Aberger, C. R., Lamb, A., Olukotun, K., Re, C.
  2017; 10 (12): 1849–52
- **HoloClean: Holistic Data Repairs with Probabilistic Inference** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Rekatsinas, T., Chu, X., Ilyas, I. F., Re, C.
  2017; 10 (11): 1190–1201
- **Report from the third workshop on Algorithms and Systems for MapReduce and Beyond (BeyondMR' 16)** *SIGMOD RECORD*
  Afrati, F. N., Hidders, J., Re, C., Sroka, J., Ullman, J.
  2017; 46 (2): 43–48

- **Understanding and Optimizing Asynchronous Low-Precision Stochastic Gradient Descent**
  De Sa, C., Feldman, M., Re, C., Olukotun, K., Assoc Comp Machinery
  ASSOC COMPUTING MACHINERY.2017: 561–74
- **Snorkel: Fast Training Set Generation for Information Extraction**
  Ratner, A. J., Bach, S. H., Ehrenberg, H. R., Re, C., ACM SIGMOD
  ASSOC COMPUTING MACHINERY.2017: 1683–86
- **Learning to Compose Domain-Specific Transformations for Data Augmentation**
  Ratner, A. J., Ehrenberg, H. R., Hussain, Z., Dunnmon, J., Re, C.
  edited by Guyon, Luxburg, U. V., Bengio, S., Wallach, H., Fergus, R., Vishwanathan, S., Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2017
- **Inferring Generative Model Structure with Static Analysis**
  Varma, P., He, B., Bajaj, P., Khandwala, N., Banerjee, I., Rubin, D., Re, C.
  edited by Guyon, Luxburg, U. V., Bengio, S., Wallach, H., Fergus, R., Vishwanathan, S., Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2017
- **SLiM Fast: Guaranteed Results for Data Fusion and Source Reliability**
  Rekatsinas, T., Joglekar, M., Garcia-Molina, H., Parameswaran, A., Re, C., ACM SIGMOD
  ASSOC COMPUTING MACHINERY.2017: 1399–1414
- **Data Programming: Creating Large Training Sets, Quickly.** *Advances in neural information processing systems*
  Ratner, A., De Sa, C., Wu, S., Selsam, D., Re, C.
  2016; 29: 3567–75
- **Joins via Geometric Resolutions: Worst Case and Beyond**
  Khamis, M., Ngo, H. Q., Re, C., Rudra, A.
  ASSOC COMPUTING MACHINERY.2016
- **Extracting Databases from Dark Data with DeepDive.** *Proceedings. ACM-Sigmod International Conference on Management of Data*
  Zhang, C., Shin, J., Ré, C., Cafarella, M., Niu, F.
  2016; 2016: 847-859
- **EmptyHeaded: A Relational Engine for Graph Processing.** *Proceedings. ACM-Sigmod International Conference on Management of Data*
  Aberger, C. R., Tu, S., Olukotun, K., Ré, C.
  2016; 2016: 431-446
- **Materialization Optimizations for Feature Selection Workloads** *ACM TRANSACTIONS ON DATABASE SYSTEMS*
  Zhang, C., Kumar, A., Re, C.
  2016; 41 (1)
- **DeepDive: Declarative Knowledge Base Construction** *SIGMOD RECORD*
  De Sa, C., Ratner, A., Re, C., Shin, J., Wang, F., Wu, S., Zhang, C.
  2016; 45 (1): 60-67
- **Predicting non-small cell lung cancer prognosis by fully automated microscopic pathology image features.** *Nature communications*
  Yu, K., Zhang, C., Berry, G. J., Altman, R. B., Ré, C., Rubin, D. L., Snyder, M.
  2016; 7: 12474-?
- **CYCLADES: Conflict-free Asynchronous Machine Learning**
  Pan, X., Lam, M., Tu, S., Papailiopoulos, D., Zhang, C., Jordan, M. I., Ramchandran, K., Re, C., Recht, B.
  edited by Lee, D. D., Sugiyama, M., Luxburg, U. V., Guyon, Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2016
- **Dark Data: Are We Solving the Right Problems?**
  Cafarella, M., Ilyas, I. F., Kornacker, M., Kraska, T., Re, C., IEEE
  IEEE.2016: 1444–45

- **High Performance Parallel Stochastic Gradient Descent in Shared Memory**
  Sallinen, S., Satish, N., Smelyanskiy, M., Sury, S. S., Re, C., IEEE
  IEEE.2016: 873–82
- **Asynchrony begets Momentum, with an Application to Deep Learning**
  Mitliagkas, I., Zhang, C., Hadjis, S., Re, C., IEEE
  IEEE.2016: 997–1004
- **Weighted SGD for ℓ p Regression with Randomized Preconditioning.** *Proceedings of the ... Annual ACM-SIAM Symposium on Discrete Algorithms. ACM-SIAM Symposium on Discrete Algorithms*
  Yang, J., Chow, Y., Re, C., Mahoney, M. W.
  2016; 2016: 558–69
- **Scan Order in Gibbs Sampling: Models in Which it Matters and Bounds on How Much.** *Advances in neural information processing systems*
  He, B., De Sa, C., Mitliagkas, I., Ré, C.
  2016; 29
- **Ensuring Rapid Mixing and Low Bias for Asynchronous Gibbs Sampling.** *JMLR workshop and conference proceedings*
  De Sa, C., Olukotun, K., Ré, C.
  2016; 48: 1567-1576
- **Large-scale extraction of gene interactions from full-text literature using DeepDive** *BIOINFORMATICS*
  Mallory, E. K., Zhang, C., Re, C., Altman, R. B.
  2016; 32 (1): 106-113
- **Taming the Wild: A Unified Analysis of Hogwild!-Style Algorithms.** *Advances in neural information processing systems*
  De Sa, C., Zhang, C., Olukotun, K., Ré, C.
  2015; 28: 2656-2664
- **Energy-Efficient Abundant-Data Computing: The N3XT 1,000x** *COMPUTER*
  Aly, M. M., Gao, M., Hills, G., Lee, C., Pitner, G., Shulaker, M. M., Wu, T. F., Asheghi, M., Bokor, J., Franchetti, F., Goodson, K. E., Kozyrakis, C., Markov, et al
  2015; 48 (12): 24-33
- **Rapidly Mixing Gibbs Sampling for a Class of Factor Graphs Using Hierarchy Width.** *Advances in neural information processing systems*
  De Sa, C., Zhang, C., Olukotun, K., Ré, C.
  2015; 28: 3079-3087
- **The mobilize center: an NIH big data to knowledge center to advance human movement research and improve mobility.** *Journal of the American Medical Informatics Association*
  Ku, J. P., Hicks, J. L., Hastie, T., Leskovec, J., Ré, C., Delp, S. L.
  2015; 22 (6): 1120-1125
- **Mindtagger: A Demonstration of Data Labeling in Knowledge Base Construction.** *Proceedings of the VLDB Endowment. International Conference on Very Large Data Bases*
  Shin, J., Ré, C., Cafarella, M.
  2015; 8 (12): 1920-1923
- **Mindtagger: A Demonstration of Data Labeling in Knowledge Base Construction** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Shin, J., Re, C., Cafarella, M.
  2015; 8 (12): 1921–24
- **Incremental Knowledge Base Construction Using DeepDive.** *Proceedings of the VLDB Endowment. International Conference on Very Large Data Bases*
  Shin, J., Wu, S., Wang, F., De Sa, C., Zhang, C., Ré, C.
  2015; 8 (11): 1310-1321
- **Caffe con Troll: Shallow Ideas to Speed Up Deep Learning.** *Proceedings of the Fourth Workshop on Data analytics at sCale (DanaC 2015) : May 31st, 2015, Melbourne, Australia. Workshop on Data Analytics in the Cloud (4th : 2015 : Melbourne, Vic.)*
  Hadjis, S., Abuzaid, F., Zhang, C., Ré, C.

2015; 2015

- **A Database Framework for Classifier Engineering.** *CEUR workshop proceedings*
  Kimelfeld, B., Re, C.
  2015; 1378
- **An Asynchronous Parallel Stochastic Coordinate Descent Algorithm** *JOURNAL OF MACHINE LEARNING RESEARCH*
  Liu, J., Wright, S. J., Re, C., Bittorf, V., Sridhar, S.
  2015; 16: 285-322
- **Asynchronous stochastic convex optimization: the noise is in the noise and SGD don't care**
  Chaturapruek, S., Duchi, J. C., Re, C.
  edited by Cortes, C., Lawrence, N. D., Lee, D. D., Sugiyama, M., Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2015
- **Effectively Creating Weakly Labeled Training Examples via Approximate Domain Knowledge**
  Natarajan, S., Picado, J., Khot, T., Kersting, K., Re, C., Shavlik, J.
  edited by Davis, J., Ramon, J.
  SPRINGER-VERLAG BERLIN.2015: 92–107
- **Rapidly Mixing Gibbs Sampling for a Class of Factor Graphs Using Hierarchy Width**
  De Sa, C., Zhang, C., Olukotun, K., Re, C.
  edited by Cortes, C., Lawrence, N. D., Lee, D. D., Sugiyama, M., Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2015
- **Taming the Wild: A Unified Analysis of HOGWILD!-Style Algorithms**
  De Sa, C., Zhang, C., Olukotun, K., Re, C.
  edited by Cortes, C., Lawrence, N. D., Lee, D. D., Sugiyama, M., Garnett, R.
  NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2015
- **A Machine Reading System for Assembling Synthetic Paleontological Databases** *PLOS ONE*
  Peters, S. E., Zhang, C., Livny, M., Re, C.
  2014; 9 (12)
- **DimmWitted: A Study of Main-Memory Statistical Analytics** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Zhang, C., Re, C.
  2014; 7 (12): 1283–94
- **Transducing Markov Sequences** *JOURNAL OF THE ACM*
  Kimelfeld, B., Re, C.
  2014; 61 (5)
- **Skew Strikes Back: New Developments in the Theory of Join Algorithms** *SIGMOD RECORD*
  Ngo, H. Q., Re, C., Rudra, A.
  2013; 42 (4): 5–16
- **Feature Selection in Enterprise Analytics: A Demonstration using an R-based Data Analytics System** *PROCEEDINGS OF THE VLDB ENDOWMENT*
  Konda, P., Kumar, A., Re, C., Sashikanth, V.
  2013; 6 (12): 1306–9
- **Ringtail: Nowcasting Made Easy**
  Antenucci, D., Cafarella, M., Levenstein, Margaret, C., Ré, C., Shapiro, M.
  2013
- **Building an Entity-Centric Stream Filtering Test Collection for TREC 2102**
  Frank, John, R., Kleiman-Weiner, M., Roberts, Daniel, A., Niu, F., Ré, C., Soboroff, I.
  2013
- **GeoDeepDive: Statistical Inference using Familiar Data-Processing Languages.** *SIGMOD 13 (demo).*

Zhang, C., Govindaraju, V., Borchardt, J., Foltz, T., Ré, C., Peters, S.
2013

- **Parallel Stochastic Gradient Algorithms for Large-Scale Matrix Completion** *Mathematical Programming Computation*
Recht, B., Ré, C.
2013
- **Using Commonsense Knowledge to Automatically Create (Noisy) Training Examples from Text** *StarAI with AAAI*
Natarajan, S., Picado, J., Khot, T., Kersting, K., Ré, C., Shavlik, J.
2013
- **Understanding Tables in Context Using Standard NLP Toolkits** *ACL 2013 (Short Paper)*
Govindaraju, V., Zhang, C., Ré, C.
2013
- **Hazy: Making it Easier to Build and Maintain Big-data Analytics**
Kumar, A., Niu, F., Ré, C.
2013
- **Towards High-Throughput Gibbs Sampling at Scale: A Study across Storage Managers.**
Zhang, C., Ré, C.
2013
- **Robust Statistics in IceCube Initial Muon Reconstruction**
Wellons, M., Collaboration, t., Recht, B., Ré, C.
2013
- **Feature Selection in Enterprise Analytics: A Demonstration using an R-based Data Analytics System**
Konda, P., Kumar, A., Ré, C., Sashikanth, V.
2013
- **An Approximate, Efficient LP Solver for LP Rounding** *NIPS*
Sridhar, S., Bittorf, V., Liu, J., Zhang, C., Ré, C., Wright, Stephen, J.
2013
- **Brainwash: A Data System for Feature Engineering (Vision Track)**
Anderson, M., Antenucci, D., Bittorf, V., Burgess, M., Cafarella, M., Kumar, A.
2013
- **Ringtail: Nowcasting Made Easy.**
Antenucci, D., Li, E., Liu, S., Cafarella, Michael, J., Ré, C.
2013
- **DeepDive: Web-scale Knowledge-base Construction using Statistical Learning and Inference** *VLDS*
Niu, F., Zhang, C., Ré, C., Shavlik, J.
2012
- **Toward a noncommutative arithmetic-geometric mean inequality: conjectures, case-studies, and consequences** *COLT*
Recht, B., Ré, C.
2012
- **Big Data versus the Crowd: Looking for Relationships in All the Right Places** *ACL*
Zhang, C., Niu, F., Ré, C., Shavlik, J.
2012
- **Factoring nonnegative matrices with linear programs.** *NIPS*
Bittorf, V., Recht, B., Ré, C., Tropp, Joel, A.
2012
- **Scaling Inference for Markov Logic via Dual Decomposition (Short Paper).** *ICDM*
Niu, F., Zhang, C., Ré, C., Shavlik, J.

2012

- **Elementary: Large-scale Knowledge-base Construction via Machine Learning and Statistical Inference** *IJSWIS, Special Issue on Knowledge Extraction from the Web, 2012, to appear*
  Niu, F., Zhang, C., Ré, C., Shavlik, J.
  2012
- **Understanding cardinality estimation using entropy maximization** *ACM Trans. Database Syst.*
  Ré, C., Suciu, D.
  2012; 37: 6
- **Worst-case Optimal Join Algorithms** *PODS*
  Ngo, Hung, Q., Porat, E., Ré, C., Rudra, A.
  2012
- **The MADlib Analytics Library or MAD Skills, the SQL.** *PVLDB*
  Hellerstein, Joseph, M., Ré, C., Schoppmann, F., Wang, D. Z., Fratkin, E., Gorajek, A.
  2012
- **Probabilistic Management of OCR using an RDBMS**
  Kumar, A., Ré, C.
  2012
- **Towards a Unified Architecture for In-Database Analytics**
  Feng, A., Kumar, A., Recht, B., Ré, C.
  2012
- **Optimizing Statistical Information Extraction Programs Over Evolving Text**
  Chen, F., Feng, X., Ré, C., Wang, M.
  2012
- **Probabilistic Databases**
  Suciu, D., Olteanu, D., Ré, C., Koch, C.
  2011
- **Automatic Optimization for MapReduce Programs** *PVLDB*
  Jahani, E., Cafarella, Michael, J., Ré, C.
  2011; 4: 385-396
- **Tuffy: Scaling up Statistical Inference in Markov Logic Networks using an RDBMS** *PVLDB*
  Niu, F., Ré, C., Doan, A., Shavlik, Jude, W.
  2011; 4: 373-384
- **Queries and materialized views on probabilistic databases** *J. Comput. Syst. Sci.*
  Dalvi, Nilesh, N., Re, C., Suciu, D.
  2011; 77: 473-490
- **Felix: Scaling Inference for Markov Logic with an Operator-based Approach** *ArXiv e-prints*
  Niu, F., Zhang, C., Ré, C.
  2011
- **Hogwild!: A Lock-Free Approach to Parallelizing Stochastic Gradient Descent** *NIPS*
  Niu, F., Recht, B., Ré, C., Wright, Stephen, J., Ré, C., Shavlik, J.
  2011
- **Parallel Stochastic Gradient Algorithms for Large-Scale Matrix Completion** *Optimization Online*
  Recht, B., Ré, C.
  2011
- **Incrementally maintaining classification using an RDBMS** *PVLDB*
  Koc, M. L., Ré, C.

2011; 4: 302-313

- **Manimal: Relational Optimization for Data-Intensive Programs** *WebDB*
  Cafarella, Michael, J., Ré, C.
  2010
- **Approximation Trade-Offs in a Markovian Stream Warehouse: An Empirical Study (Short Paper)** *ICDE*
  Letchner, J., Ré, C., Balazinska, M., Philipose, M.
  2010
- **Understanding Cardinality Estimation using Entropy Maximization** *PODS*
  Ré, C., Suciu, D.
  2010
- **Transducing Markov Sequences** *PODS*
  Kimelfeld, B., Ré, C.
  2010
- **Query Containment of Tier-2 Queries over a Probabilistic Database** *Management of Uncertain Databases (MUD)*
  Moore, Katherine, F., Rastogi, V., Ré, C., Suciu, D.
  2009
- **Repeatability & Workability Evaluation of SIGMOD 2009** *SIGMOD Record*
  Manegold, S., Manolescu, I., Afanasiev, L., Feng, J., Gou, G., Hadjieleftheriou, M., Re, C. M.
  2009; 38: 40-43
- **Large-Scale Deduplication with Constraints Using Dedupalog** *ICDE*
  Arasu, A., Ré, C., Suciu, D.
  2009: 952-963
- **The Trichotomy of HAVING Queries on a Probabilistic Database** *VLDB Journal*
  Ré, C., Suciu, D.
  2009
- **Access Methods for Markovian Streams** *ICDE*
  Letchner, J., Ré, C., Balazinska, M., Philipose, M.
  2009: 246-257
- **Probabilistic databases: Diamonds in the dirt** *Commun. ACM Volume*
  Dalvi, Nilesh, N., Ré, C., Suciu, D.
  2009; 52: 86-94
- **General Database Statistics Using Entropy Maximization** *DBPL*
  Kaushik, R., Ré, C., Suciu, D.
  2009: 84-99
- **Managing Large-Scale Probabilistic Databases** *University of Washington, Seattle*
  Ré, C.
  2009
- **Repeatability & Workability Evaluation of SIGMOD 2009** *SIGMOD Record*
  Manegold, S., Manolescu, I., Afanasiev, L., Feng, J., Gou, G., Hadjieleftheriou, M., Re, C. M.
  2009; 38: 40-43
- **Implementing NOT EXISTS Predicates over a Probabilistic Database** *QDB/MUD*
  Wang, T., Ré, C., Suciu, D.
  2008: 73-86
- **A demonstration of Cascadia through a digital diary application**
  Khoussainova, N., Welbourne, E., Balazinska, M., Borriello, G., Cole, G., Letchner, J.

2008

- **Managing Probabilistic Data with Mystiq (Plenary Talk)**
  Ré, C.
  2008
- **Systems aspects of probabilistic data management (Part II)** *PVLDB*
  Balazinska, M., Ré, C., Suciu, D.
  2008; 1: 1520-1521
- **Systems aspects of probabilistic data management (Part I)** *PVLDB*
  Balazinska, M., Ré, C., Suciu, D.
  2008; 1: 1520-1521
- **Approximate lineage for probabilistic databases** *PVLDB*
  Ré, C., Suciu, D.
  2008; 1: 797-808
- **Managing Probabilistic Data with MystiQ: The Can-Do, the Could-Do, and the Can't-Do** *SUM*
  Ré, C., Suciu, D.
  2008: 5-18
- **Event queries on correlated probabilistic streams**
  Ré, C., Letchner, J., Balazinska, M., Suciu, D.
  2008
- **Advances in Processing SQL Queries on Probabilistic Data** *Invited Abstract in INFORMS 2008, Simulation.*
  Ré, C., Suciu, D.
  2008
- **Challenges for Event Queries over Markovian Streams** *IEEE Internet Computing*
  Letchner, J., Ré, C., Balazinska, M., Philipose, M.
  2008; 12: 30-36
- **Structured Querying of Web Text Data: A Technical Challenge** *CIDR*
  Cafarella, Michael, J., Ré, C., Suciu, D., Etzioni, O.
  2007: 225-234
- **Managing Uncertainty in Social Networks** *IEEE Data Eng. Bull.*
  Adar, E., Ré, C.
  2007; 30: 15-22
- **Materialized Views in Probabilistic Databases for Information Exchange and Query Optimization** *VLDB*
  Re, C., Suciu, D.
  2007: 51-62
- **Efficient Top-k Query Evaluation on Probabilistic Data** *ICDE*
  Ré, C., Dalvi, Nilesh, N., Suciu, D.
  2007: 886-895
- **Efficient Evaluation of HAVING Queries** *DBPL*
  Ré, C., Suciu, D.
  2007: 186-200
- **Management of data with uncertainties** *CIKM*
  Re, C., Suciu, D.
  2007: 3-8
- **Orderings on Annotated Collections** *Liber Amicorum in honor of Jan Paredaens 60th Birthday*
  Ré, C., Suciu, D., Tannen, V.

2007

- **A Complete and Efficient Algebraic Compiler for XQuery** *ICDE*
  Re, C., Sim'eon, J., Fern'andez, Mary, F.
  2006: 14

- **XQuery!: An XML Query Language with Side Effects**
  Ghelli, G., Ré, C., Sim'eon, J.
  2006

- **Query Evaluation on Probabilistic Databases** *IEEE Data Eng. Bull.*
  Ré, C., Dalvi, Nilesh, N., Suciu, D.
  2006; 29: 25-31

- **MYSTIQ: a system for finding more answers by using probabilities**
  Boulos, J., Dalvi, Nilesh, N., Mandhani, B., Mathur, S., Ré, C., Suciu, D.
  2005

- **A Framework for XML-Based Integration of Data, Visualization and Analysis in a Biomedical Domain** *XSym*
  Bales, N., Brinkley, J., Lee, E., Sally, Mathur, S., Re, C., Suciu, D.
  2005: 207-221

- **Supporting workflow in a course management system** *SIGCSE*
  Botev, C., Chao, H., Chao, T., Cheng, Y., Doyle, R., Grankin, S.
  2005: 262-266

- **Distributed XQuery**
  Ré, C., Brinkley, J., Hinshaw, K., Suciu, D.
  2004

- **WS-Membership - Failure Management in a Web-Services World** *WWW (Alternate Paper Tracks)*
  Vogels, W., Ré, C.
  2003

- **A Collaborative Infrastructure for Scalable and Robust News Delivery**
  Vogels, W., Ré, C., Renesse, R., Birman, Kenneth, P.
  2002

- **Snorkel DryBell: A Case Study in Deploying Weak Supervision at Industrial Scale.** *Proceedings. ACM-Sigmod International Conference on Management of Data*
  Bach, S. H., Rodriguez, D. n., Liu, Y. n., Luo, C. n., Shao, H. n., Xia, C. n., Sen, S. n., Ratner, A. n., Hancock, B. n., Alborzi, H. n., Kuchhal, R. n., Ré, C. n., Malkin, et al
  ; 2019: 362–75