

## List of Publications

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**Remark:** In certain communities it is common that the order in which co-authors appear is related to their contribution and seniority, in others it is common that co-authors appear in alphabetical order. I have added the sign ' (after the number associated with each paper) marking the entries of papers in which co-authors do not appear in alphabetical order.

Updated: Sep. 2017.

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### Peer-Reviewed Journals (published/to appear)

1. U. Feige and M. Langberg.  
Approximation algorithms for maximization problems arising in graph partitioning.  
*Journal of Algorithms* 41(2), 174-211, 2001.
2. U. Feige, M. Karpinski and M. Langberg.  
A Note on Approximating MAX-BISECTION on Regular Graphs.  
*Information Processing Letters* 79, 181-188, 2001.
3. U. Feige, M. Karpinski and M. Langberg.  
Improved approximation of Max-Cut on graphs of bounded degree.  
*Journal of Algorithm* 43(2), 201-219, 2002.
4. U. Feige, M. Langberg and G. Schechtman.  
Graphs with tiny vector chromatic numbers and huge chromatic numbers.  
*SIAM Journal on Computing* 33(6), 1338-1368, 2004.  
Also appeared in proceedings of the 43rd Annual IEEE Symposium on Foundations of Computer Science (FOCS), 283-292, 2002.
5. U. Feige and M. Langberg.  
The  $RPR^2$  rounding technique for semidefinite programs.  
*Journal of Algorithms* 60(1), 1-23, 2006.  
Also appeared in proceedings of 28th International Colloquium on Automata, Languages and Programming (ICALP), 213-224, 2001.
- 6'. M. Langberg, A. Sprintson and J. Bruck.  
The encoding complexity of network coding.  
*IEEE Transactions on Information Theory* 52(6), 2386-2397, 2006 (a joint special issue with *IEEE/ACM Transactions on Networking on Networking and Information Theory*).  
Also appeared in proceedings of IEEE International Symposium on Information Theory (ISIT) 2005, 1987-1991.
7. A. Avidor and M. Langberg.  
The Multi-Multiway Cut Problem.  
*Theoretical Computer Science* 377(1-3), 35-42, 2007.  
Also appeared in proceedings of 9th Scandinavian Workshop on Algorithm Theory (SWAT), 273-284, 2004.
8. M. Langberg.  
Oblivious channels and their capacity.  
*IEEE Transactions on Information Theory*, 54(1), 424-429, 2008.  
A previous version under the name "Oblivious channels" appeared in IEEE International Symposium on Information Theory (ISIT) 2006, 2739-2743.

- 9'. S. Jaggi, M. Langberg, S. Katti, T. Ho, D. Katabi, M. Médard and M. Effros.  
Error-correction for Byzantine Adversaries in Networks: A Distributed Network Coding Approach.  
*IEEE Transactions on Information Theory (special issue on information-theoretic security)* 54(6), 2008, 2596 - 2603.  
Also appeared in proceedings of 26th Annual IEEE Conference on Computer Communications (INFOCOM), 616-624, 2007; and in 3rd Workshop on Network Coding, Theory, and Applications (NetCod) 2007 (invited talk).
- 10'. M. Langberg, A. Sprintson and J. Bruck.  
Optimal Universal Schedules for Discrete Broadcast.  
*IEEE Transactions on Information Theory* 54(9): 4365-4372, 2008.  
Also in proceedings of IEEE International Symposium on Information Theory (ISIT) 2004, p. 111.
11. J. Gao, M. Langberg and L. Schulman.  
Analysis of Incomplete Data and an Intrinsic-Dimension Helly Theorem.  
*Discrete & Computational Geometry* 40(4): 537-560, 2008.  
Also in proceedings of 17th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA), 464-473, 2006.
- 12'. M. Langberg, A. Sprintson and J. Bruck.  
Network Coding: A Computational Perspective.  
*IEEE Transactions on Information Theory* 55(1): 147-157, 2009.  
Also in 40th Annual Conference on Information Sciences and Systems (CISS) 2006 (invited paper).
13. M. Langberg and L. Schulman.  
Contraction and expansion of convex sets.  
*Discrete & Computational Geometry* 42(4): 594-614, 2009.  
Also in 19th Canadian Conference on Computational Geometry (CCCG), 25-28, 2007.
14. G. Kortsarz, M. Langberg and Z. Nutov.  
Approximating Maximum Subgraphs Without Short Cycles.  
*SIAM J. on Discrete Math* 24(1), 255-269, 2010.  
Also in proceedings of 11th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX), 2008, 118-131.
15. S. Chechik, M. Langberg, D. Peleg and L. Roditty.  
Fault-Tolerant Spanners for General Graphs.  
*SIAM Journal on Computing (SICOMP)* 39(7), 3403-3423, 2010.  
Also in proceedings of 41st ACM Symposium on Theory of Computing (STOC), 435-444, 2009.
16. J. Gao, M. Langberg and L. Schulman.  
Clustering lines: classification of incomplete data.  
*ACM Transactions on Algorithms*, 7(1): 8, 2010.
17. M. Langberg and A. Sprintson.  
On the Hardness of Approximating the Network Coding Capacity.  
*IEEE Transactions on Information Theory* 57(2): 1008-1014, 2011.  
Also in proceedings of IEEE International Symposium on Information Theory (ISIT) 2008, 315-319.
- 18'. E. En Gad, M. Langberg, M. Schwartz, and J. Bruck.  
Constant-Weight Gray Codes for Local Rank Modulation.  
*IEEE Transactions on Information Theory* 57(11): 7431-7442, 2011.

19. S. Chechik, M. Langberg, D. Peleg and L. Roditty.  
*f*-Sensitivity Distance Oracles and Routing Schemes.  
*Algorithmica* 63(4): 861-882, 2012 (special issue on ESA 2010).  
 Also in *proceedings of 18th Annual European Symposium on Algorithms (ESA) 2010*, 84-96.
20. B. K. Dey, S. Jaggi and M. Langberg.  
 Codes Against Online Adversaries: Large Alphabets.  
*IEEE Transactions on Information Theory* 59(6): 3304-3316, 2013.  
 Also in *proceedings of the Forty-Seventh Annual Allerton Conference on Communication, Control, and Computing, 2009*, 1169-1176.
21. B. K. Dey, S. Jaggi, M. Langberg, and A. Sarwate.  
 Upper Bounds on the Capacity of Binary Channels with Causal Adversaries.  
*IEEE Transactions on Information Theory* 59(6): 3753-3763, 2013.  
 This journal submission merges two conference papers:
  - M. Langberg, S. Jaggi and B. K. Dey.  
 Binary Causal-Adversary Channels.  
*In proc. of IEEE International Symposium on Information Theory (ISIT) 2009*, 2723 - 2727.
  - B. K. Dey, S. Jaggi, M. Langberg, and A. Sarwate.  
 Improved Upper Bounds on the Capacity of Binary Channels with Causal Adversaries.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2012*, 686-690.
- 22'. A. Jiang, M. Langberg, M. Schwartz and J. Bruck.  
 Trajectory Codes for Flash Memory.  
*IEEE Transactions on Information Theory*, 59(7): 4530-4541, 2013.  
 Also in *proceedings of IEEE International Symposium on Information Theory (ISIT) 2009*, 1219 - 1223.
- 23'. A. Ramamoorthy and M. Langberg.  
 Communicating the sum of sources over a network.  
*IEEE Journal on Selected Areas of Communications* 31(4): 655-665 (Special Issue on In-Network Computation: Exploring the Fundamental Limits) 2013.  
 This journal submission merges two conference papers:
  - M. Langberg and A. Ramamoorthy.  
 Communicating the sum of sources in a 3-sources/3-terminals network.  
*In proc. of IEEE International Symposium on Information Theory (ISIT) 2009*, 2121-2125.
  - A. Ramamoorthy and M. Langberg.  
 Communicating the sum of sources in a 3-sources/3-terminals network; revisited.  
*In proc. of IEEE International Symposium on Information Theory (ISIT) 2010*, 1853-1857.
- 24'. E. En Gad, M. Langberg, M. Schwartz, and J. Bruck.  
 Generalized Gray Codes for Local Rank Modulation.  
*IEEE Transactions on Information Theory* 59(10): 6664-6673, 2013.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2011*, 839-843.
- 25'. H. Yao, D. Silva, S. Jaggi and M. Langberg.  
 Network Codes Resilient to Jamming and Eavesdropping.  
*IEEE/ACM Transactions on Networking*, 22(6), 2014.  
 This journal submission merges two conference papers:
  - S. Jaggi and M. Langberg.  
 Resilient network codes in the presence of eavesdropping Byzantine adversaries.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2007*, 541-545.

- H. Yao, D. Silva, S. Jaggi and M. Langberg.  
Network Codes Resilient to Jamming and Eavesdropping.  
*In proceedings of IEEE International Symposium on Network Coding (NetCod) 2010.*
26. M. Effros, S. El Rouayheb, and M. Langberg.  
An Equivalence between Network Coding and Index Coding.  
*IEEE Transactions on Information Theory* 61(5): 2478-2487, 2015.  
*Also in proceedings of IEEE International Symposium on Information Theory (ISIT), 2013, 967-971.*
  - 27'. Y. Liron and M. Langberg.  
A characterization of the number of subsequences obtained via the deletion channel.  
*IEEE Transactions on Information Theory* 61(5): 2300-2312, 2015.  
*Also in proceedings of IEEE International Symposium on Information Theory (ISIT) 2012, 508-512.*
  - 28'. M. Gonen and M. Langberg.  
The coded cooperative data exchange problem for general topologies.  
*IEEE Transactions on Information Theory*, 61(10): 5656-5669, 2015.  
*Also in proceedings of IEEE International Symposium on Information Theory (ISIT) 2012, 2616-2620.*
  - 29'. E. En Gad, Y. Li, J. Kliewer, M. Langberg, A. Jiang and J. Bruck.  
Asymmetric Error Correction and Flash-Memory Rewriting using Polar Codes.  
*IEEE Transactions on Information Theory* 62(7): 4024-4038, 2016.  
This journal submission merges two conference papers:
    - E. En Gad, Y. Li, J. Kliewer, M. Langberg, A. Jiang, and J. Bruck.  
Polar coding for noisy Write-Once memories.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2014, 1638 - 1642.*
    - A. Jiang, Y. Li, E. En Gad, M. Langberg, J. Bruck.  
Joint Rewriting and Error Correction in Write-Once Memories.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2013, 1067-1071. Also in 2014 Non-Volatile Memories Workshop (NVMW 2014).*
  - 30'. W. Huang, M. Langberg, J. Kliewer and J. Bruck.  
Communication Efficient Secret Sharing.  
*IEEE Transactions on Information Theory*, 62(12): 7195-7206, 2016.
  - 31'. P. Noorzad, M. Effros, and M. Langberg.  
Can Negligible Cooperation Increase Network Reliability?  
*To appear in IEEE Transactions on Information Theory, 2017.*  
*Also in proceedings of IEEE International Symposium on Information Theory (ISIT), 2016, 1784-1788.*
  32. M. Langberg and D. Vilenchik.  
Constructing cospectral graphs via a new form of graph product.  
*To appear in Linear and Multilinear Algebra, 2017.*  
*Also in 13th Haifa Workshop on Interdisciplinary Applications of Graph Theory, Combinatorics, and Algorithms, 2013.*

### Peer-Reviewed Journals (submitted)

- 33'. W. Huang, Tracey Ho, M. Langberg, J. Kliewer.  
Single-Unicast Secure Network Coding and Network Error Correction are as Hard as Multiple-Unicast Network Coding.  
*Submitted for journal publication (IEEE Transactions on Information Theory). In second round of review process.*  
This journal submission merges three conference papers:
- W. Huang, T. Ho, M. Langberg, and J. Kliewer.  
On secure network coding with uniform wiretap sets.  
*In proceedings of IEEE International Symposium on Network Coding (NetCod), 2013.*
  - W. Huang, T. Ho, M. Langberg, and J. Kliewer.  
Single Source/Sink Network Error Correction Is As Hard As Multiple Unicast.  
*In proceedings of the Fifty-Second Annual Allerton Conference on Communication, Control, and Computing, 2014.*
  - W. Huang, M. Langberg, and J. Kliewer.  
Connecting multiple-unicast and network error correction: reduction and unachievability.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2015, 361-365.*
34. M. Langberg, M. Schwartz, and E. Yaakobi.  
Coding for the  $\ell_\infty$ -Limited Permutation Channel.  
*Submitted for journal publication (IEEE Transactions on Information Theory). In second round of review process.*  
*Also in proceedings of IEEE International Symposium on Information Theory (ISIT) 2015, 1936-1940.*
35. I. Haviv and M. Langberg.  
On Linear Index Coding for Random Graphs.  
*Submitted for journal publication (IEEE Transactions on Information Theory). In second round of review process.*  
*Also in proceedings of IEEE International Symposium on Information Theory (ISIT) 2012, 2241-2245.*
36. B. K. Dey, S. Jaggi, and M. Langberg.  
Sufficiently myopic adversaries are blind.  
*Submitted for journal publication (IEEE Transactions on Information Theory).*  
*Also in proceedings of IEEE International Symposium on Information Theory (ISIT), 2015, 1164-1168.*
- 37'. P. Noorzad, M. Effros, and M. Langberg.  
The Unbounded Benefit of Encoder Cooperation for the  $k$ -user MAC.  
*Submitted for journal publication (IEEE Transactions on Information Theory). In second round of review process.*  
This journal submission merges two conference papers:
- P. Noorzad, M. Effros, and M. Langberg.  
On the cost and benefit of cooperation.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2015, 36-40.*
  - P. Noorzad, M. Effros, and M. Langberg.  
The Unbounded Benefit of Encoder Cooperation for the  $k$ -User MAC.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2016, 340-344.*

- 38'. M. Langberg and M. Effros.  
 The edge removal problem as a canonical problem in network coding.  
*Submitted for journal publication (IEEE Transactions on Information Theory). In second round of review process.*  
 This journal submission merges two conference papers:
- M. Langberg and M. Effros.  
 Network Coding: Is zero error always possible?  
*In proceedings of Forty-Ninth Annual Allerton Conference on Communication, Control, and Computing, 2011, 1478-1485.*
  - M. Langberg and M. Effros.  
 Source coding for dependent sources.  
*In proceedings of IEEE Information Theory Workshop (ITW), 2012.*
39. Z. Chen, S. Jaggi and M. Langberg.  
 The Capacity of Online (Causal)  $q$ -ary Error-Erasure Channels.  
*Submitted for journal publication (IEEE Transactions on Information Theory).*  
 This journal submission merges two conference papers:
- Z. Chen, S. Jaggi and M. Langberg.  
 A characterization of the capacity of online (causal) binary channels.  
*In proceedings of the 47th ACM Symposium on Theory of Computing (STOC), 2015, 287-296.*
  - Z. Chen, S. Jaggi and M. Langberg.  
 The Capacity of Online (Causal)  $q$ -ary Error-Erasure Channels.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2016, 915-919.*

### Peer-Reviewed Conference Proceedings (appeared/to appear)

1. U. Feige, M. Langberg and K. Nissim.  
 On the hardness of approximating NP witnesses.  
*In proceedings of 3rd International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX), 120-131, 2000.*
2. U. Feige and M. Langberg.  
 The  $RPR^2$  rounding technique for semidefinite programs.  
*In proceedings of 28th International Colloquium on Automata, Languages and Programming (ICALP), 213-224, 2001.*
3. U. Feige, M. Langberg and G. Schechtman.  
 Graphs with tiny vector chromatic numbers and huge chromatic numbers.  
*In proceedings of the 43rd Annual IEEE Symposium on Foundations of Computer Science (FOCS), 283-292, 2002.*
4. M. Langberg, A. Pnueli and Y. Rodeh.  
 The ROBDD size of simple CNF formulas.  
*In proceedings of 12th Advanced Research Working Conference on Correct Hardware Design and Verification Methods (CHARME), 363-377, 2003.*
5. M. Langberg.  
 Testing the independence number of hypergraphs.  
*In proceedings of 8th International Workshop on Randomization and Computation (RANDOM), 405-416, 2004.*

6. M. Langberg.  
Private codes or Succinct random codes that are (almost) perfect.  
*In proceedings of 45th Annual IEEE Symposium on Foundations of Computer Science (FOCS), 325-334, 2004.*
7. M. Langberg, A. Sprintson and J. Bruck.  
Optimal Universal Schedules for Discrete Broadcast.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), p. 111, 2004.*
8. A. Avidor and M. Langberg.  
The Multi-Multiway Cut Problem.  
*In proceedings of 9th Scandinavian Workshop on Algorithm Theory (SWAT), 273-284, 2004.*
9. M. Langberg, A. Sprintson and J. Bruck.  
Staleness vs. Waiting Time in Universal Discrete Broadcast.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2005, 2124-2128.*
10. M. Langberg, A. Sprintson and J. Bruck.  
The encoding complexity of network coding.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2005, 1987-1991.*
11. S. Jaggi, M. Langberg, T. Ho and M. Effros.  
Correction of Adversarial Errors in Networks.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2005, 1455-1459.*
12. M. Langberg, Y. Rabani and C. Swamy.  
Approximation Algorithms for Graph Homomorphism Problems.  
*In proceedings of 9th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX), 2006, 176-187.*
13. J. Gao, M. Langberg and L. Schulman.  
Analysis of Incomplete Data and an Intrinsic-Dimension Helly Theorem.  
*In proceedings of 17th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA), 464-473, 2006.*
14. M. Langberg.  
Oblivious channels.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2006, 2739-2743.*
15. S. Jaggi and M. Langberg.  
Resilient network codes in the presence of eavesdropping Byzantine adversaries.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2007, 541-545.*
16. M. Langberg and L. Schulman.  
Contraction and expansion of convex sets.  
*In 19th Canadian Conference on Computational Geometry (CCCG), 2007, 25-28*
17. S. Jaggi, M. Langberg, S. Katti, T. Ho, D. Katabi, M. Médard and M. Effros.  
Error-correction for Byzantine Adversaries in Networks: A Distributed Network Coding Approach.  
*In proceedings of 26th Annual IEEE Conference on Computer Communications (INFOCOM), 2007, 616-624.*
18. S. Shengvi, S. Jaggi, B. K. Dey and M. Langberg.  
"Real" Slepian-Wolf coding using Random (1,-1) Matrices.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2008, 1423-1427.*

- 19'. L. Nutman and M. Langberg.  
Adversarial Models and Resilient Schemes for Network Coding.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2008, 171-175.*
20. M. Langberg and A. Sprintson.  
On the Hardness of Approximating the Network Coding Capacity.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2008, 315-319.*
21. G. Kortsarz, M. Langberg and Z. Nutov.  
Approximating Maximum Subgraphs Without Short Cycles.  
*In proceedings of 11th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX), 2008, 118-131.*
22. M. Langberg and A. Ramamoorthy.  
Communicating the sum of sources in a 3-sources/3-terminals network.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2009, 2121-2125.*
- 23'. A. Jiang, M. Langberg, M. Schwartz and J. Bruck.  
Trajectory Codes for Flash Memory.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2009, 1219 - 1223.*
- 24' M. Langberg, S. Jaggi and B. K. Dey.  
Binary Causal-Adversary Channels.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2009, 2723 - 2727.*
25. M. Langberg and M. Médard.  
On the Multiple Unicast Network Coding Conjecture.  
*In proceedings of the Forty-Seventh Annual Allerton Conference on Communication, Control, and Computing, 2009, 222 - 227.*
26. B. K. Dey, S. Jaggi and M. Langberg.  
Codes against online adversaries, Part I: Large alphabets.  
*In proceedings of the Forty-Seventh Annual Allerton Conference on Communication, Control, and Computing, 2009, 1169-1176.*
- 27'. A. Jiang, M. Langberg, R. Mateescu and J. Bruck.  
Data Movement in Flash Memories.  
*In proceedings of the Forty-Seventh Annual Allerton Conference on Communication, Control, and Computing, 2009, 1031 - 1038.*
28. S. Chechik, M. Langberg, D. Peleg and L. Roditty.  
Fault-Tolerant Spanners for General Graphs.  
*In proceedings of 41st ACM Symposium on Theory of Computing (STOC), 2009, 435-444.*
- 29'. H. Yao, D. Silva, S. Jaggi and M. Langberg.  
Network Codes Resilient to Jamming and Eavesdropping.  
*In proceedings of IEEE International Symposium on Network Coding (NetCod), 2010, 1-6.*
30. M. Langberg and L. Schulmann.  
Universal  $\epsilon$ -approximators for integrals.  
*In proceedings of ACM-SIAM Symposium on Discrete Algorithms (SODA) 2010, 598-607.*
31. R. Bar-Yanai, M. Langberg, D. Peleg and L. Roditty.  
Realtime Classification for Encrypted traffic.  
*In proceedings of 9th International Symposium on Experimental Algorithms (SEA) 2010, 373-385.*



- 32'. A. Ramamoorthy and M. Langberg.  
Communicating the sum of sources in a 3-sources/3-terminals network; revisited.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2010, 1853-1857.*
- 33'. A. Jiang, M. Langberg, R. Mateescu and J. Bruck.  
Data movement and aggregation in flash memories.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2010, 1918 - 1922.*
34. B. K. Dey, S. Jaggi, M. Langberg, and A. Sarwate.  
Codes against Delayed Adversaries.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2010, 285 - 289.*
- 35'. R. A. Costa, M. Langberg, and J. Barros  
One-Shot Capacity of Discrete Channels.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2010, 211 - 215.*
36. S. Chechik, M. Langberg, D. Peleg and L. Roditty.  
 $f$ -Sensitivity Distance Oracles and Routing Schemes.  
*In proceedings of 18th Annual European Symposium on Algorithms (ESA) 2010, 84-96.*
37. D. Feldman and M. Langberg.  
A Unified Framework for Approximating and Clustering Data.  
*In 43rd ACM Symposium on Theory of Computing (STOC), 2011, 569-578.*
38. I. Haviv and M. Langberg.  
Beating the Gilbert-Varshamov Bound for Online Channels.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2011, 1297-1301.*
- 39'. E. En Gad, M. Langberg, M. Schwartz, and J. Bruck.  
Generalized Gray Codes for Local Rank Modulation.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2011, 839-843.*
- 40'. M. A. R. Chaudhry, Z. Asad, A. Sprintson, and M. Langberg.  
On the Complementary Index Coding Problem.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2011, 306-310.*
41. Y. Berliner and M. Langberg.  
Index coding with outerplanar side information.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2011, 869-873.*
- 42'. M. A. R. Chaudhry, Z. Asad, A. Sprintson, and M. Langberg.  
Finding Sparse Solutions for the Index Coding Problem.  
*In proceedings of IEEE GLOBECOM - Wireless Communications Symposium, 2011, 1-5.*
- 43'. M. Langberg and M. Effros.  
Network Coding: Is zero error always possible?  
*In proceedings of Forty-Ninth Annual Allerton Conference on Communication, Control, and Computing, 2011, 1478-1485.*
- 44'. Y. Liron and M. Langberg.  
A characterization of the number of subsequences obtained via the deletion channel.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2012, 508-512.*
45. B. K. Dey, S. Jaggi, M. Langberg, and A. Sarwate.  
Improved Upper Bounds on the Capacity of Binary Channels with Causal Adversaries.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2012, 686-690.*

46. M. Gonen and M. Langberg.  
The coded cooperative data exchange problem for general topologies.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2012, 2616-2620.*
47. I. Haviv and M. Langberg.  
On Linear Index Coding for Random Graphs.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT) 2012, 2241-2245.*
- 48'. M. Langberg and M. Effros.  
Source coding for dependent sources.  
*In proceedings of IEEE Information Theory Workshop (ITW), 2012.*
49. I. Haviv and M. Langberg.  
 $H$ -wise independent distributions.  
*In proceedings of Innovations in Theoretical Computer Science (ITCS), 2013, 541-551.*
50. P. H. Che, M. Chen, T. Ho, S. Jaggi, and M. Langberg.  
Routing for Security in Networks with Adversarial Nodes.  
*In proceedings of IEEE International Symposium on Network Coding (NetCod), 2013.*
- 51'. W. Huang, T. Ho, M. Langberg, and J. Kliewer.  
On secure network coding with uniform wiretap sets.  
*In proceedings of IEEE International Symposium on Network Coding (NetCod), 2013.*
- 52'. M. F. Wong, M. Langberg, and M. Effros.  
On a Capacity Equivalence between Network and Index Coding and the Edge Removal Problem.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2013, 972-976.*
- 53'. E. Yaakobi, M. Schwartz, M. Langberg, and J. Bruck.  
Sequence Reconstruction for Grassmann Graphs and Permutations.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2013, 874-878.*
54. M. Effros, S. El Rouayheb, and M. Langberg.  
An Equivalence between Network Coding and Index Coding.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2013, 967-971.*
- 55'. K. Shanmugam, A. G. Dimakis, and M. Langberg.  
Local Graph Coloring and Index Coding.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2013, 1152-1156.*
- 56'. E. Yaakobi, M. Langberg, and J. Bruck.  
Information-Theoretic Study of Voting Systems.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2013, 1087-1091.*
- 57'. A. Jiang, Y. Li, E. En Gad, M. Langberg, J. Bruck.  
Joint Rewriting and Error Correction in Write-Once Memories.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2013, 1067-1071.*  
*Also in 2014 Non-Volatile Memories Workshop (NVMW 2014).*
- 58'. I. Levi, D. Vilenchik, M. Langberg and M. Effros.  
Zero vs. epsilon error in interference channels.  
*In proceedings of IEEE Information Theory Workshop (ITW), 2013.*
- 59'. E. J. Lee, M. Langberg, and M. Effros.  
Outer bounds and functional study of the edge removal problem.  
*In proceedings of IEEE Information Theory Workshop (ITW), 2013.*

- 60'. M. F. Wong, M. Langberg, and M. Effros.  
On an Equivalence between Multiple Multicast and Multiple Unicast Index Coding.  
*In proceedings of Fifty-first Annual Allerton Conference on Communication, Control, and Computing, 2013.*
- 61'. W. Huang, T. Ho, M. Langberg, and J. Kliewer.  
Reverse Edge Cut-Set Bounds for Secure Network Coding.  
*In proceedings of IEEE International Symposium on Information Theory (ISIT), 2014, 106 - 110.*
- 62'. E. En Gad, Y. Li, J. Kliewer, M. Langberg, A. Jiang, and J. Bruck.  
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