List of relevant papers for seminar

Background and tools (that I am planning to cover)

1. Mike Luby, Avi Wigderson:

Pairwise independence and derandomizaton.

Available at: <https://www.math.ias.edu/csdm/files/05-06/mluby_pairwise_independence_and_derandomization.pdf>

1. Ronen Shaltiel:  
   **An Introduction to Randomness Extractors.** [ICALP (2) 2011](http://dblp.uni-trier.de/db/conf/icalp/icalp2011-2.html#Shaltiel11): 21-41.

Available at: <http://www.cs.haifa.ac.il/~ronen/online_papers/ICALPinvited.pdf>

Some of the classical work

1. Noam Nisan:  
   **Pseudorandom generators for space-bounded computation.** [Combinatorica 12(4)](http://dblp.uni-trier.de/db/journals/combinatorica/combinatorica12.html" \l "Nisan92): 449-461 (1992)

Available at: <https://link.springer.com/article/10.1007%2FBF01305237>

Presented by Tomer.

1. Noam Nisan:  
   **RL <= SC.** [Computational Complexity 4](http://dblp.uni-trier.de/db/journals/cc/cc4.html#Nisan94): 1-11 (1994)

Available at: <https://link.springer.com/article/10.1007%2FBF01205052>

To be presented by Osama.

1. Noam Nisan, [David Zuckerman](http://dblp.uni-trier.de/pers/hd/z/Zuckerman:David):  
   **Randomness is Linear in Space.** [J. Comput. Syst. Sci. 52(1)](http://dblp.uni-trier.de/db/journals/jcss/jcss52.html#NisanZ96): 43-52 (1996)

Available at: <https://www.sciencedirect.com/science/article/pii/S0022000096900045?via%3Dihub>

To be presented by Anan.

1. Michael E. Saks, [Shiyu Zhou](http://dblp.uni-trier.de/pers/hd/z/Zhou:Shiyu):  
   **BP HSpace(S) subseteq DSPACE(S3/2).** [J. Comput. Syst. Sci. 58(2)](http://dblp.uni-trier.de/db/journals/jcss/jcss58.html#SaksZ99): 376-403 (1999)

Available at: <https://www.sciencedirect.com/science/article/pii/S0022000098916166?via%3Dihub>

1. Ran Raz, [Omer Reingold](http://dblp.uni-trier.de/pers/hd/r/Reingold:Omer):  
   **On Recycling the Randomness of States in Space Bounded Computation.** [STOC 1999](http://dblp.uni-trier.de/db/conf/stoc/stoc1999.html#RazR99): 159-168

Available at: <https://dl.acm.org/citation.cfm?doid=301250.301294>

To be presented by Noy on 27/5

1. Shlomoh Hoory, Nathan Linial and Avi Wigderson

Expander graphs and their applications:

Available at: <http://www.cs.huji.ac.il/~nati/PAPERS/expander_survey.pdf>

This is a survey paper on expanders, that are key in the next paper. I will cover some of it, and will ask one of the students to cover the zig-zag product.

1. Omer Reingold:  
   **Undirected connectivity in log-space.** [J. ACM 55(4)](http://dblp.uni-trier.de/db/journals/jacm/jacm55.html#Reingold08): 17:1-17:24 (2008)

To be presented by Nathan on 8/5.

A selection from more recent work (that I'm still updating).

1. [Mark Braverman](http://dblp.uni-trier.de/pers/hd/b/Braverman:Mark), [Anup Rao](http://dblp.uni-trier.de/pers/hd/r/Rao:Anup), Ran Raz, [Amir Yehudayoff](http://dblp.uni-trier.de/pers/hd/y/Yehudayoff:Amir):  
   **Pseudorandom Generators for Regular Branching Programs.** [SIAM J. Comput. 43(3)](http://dblp.uni-trier.de/db/journals/siamcomp/siamcomp43.html#BravermanRRY14): 973-986 (2014)

Available at: <http://epubs.siam.org/doi/10.1137/120875673>

To be presented by Liran on 5/6.

1. M. Kouck`y, P. Nimbhorkar, and P. Pudl´ak. Pseudorandom generators for group products. In Proceedings of the forty-third annual ACM symposium on Theory of computing, pages 263–272. ACM, 2011.
2. A. De. Pseudorandomness for permutation and regular branching programs. In 2011 IEEE 26th Annual Conference on Computational Complexity (CCC), pages 221–231. IEEE, 2011.
3. R. Impagliazzo, R. Meka, and D. Zuckerman. Pseudorandomness from shrinkage. In 2012 IEEE 53rd Annual Symposium on Foundations of Computer Science (FOCS), pages 111–119. IEEE, 2012.
4. W. M. Hoza. Typically-Correct Derandomization for Small Time and Space. Preprint. Available at <https://arxiv.org/abs/1711.00565>