

## References for Arithmetic of ACP's course

- [B] P. Bernays, *Über die Darstellung von positiven, ganzen Zahlen durch die primitiven, binären quadratischen Formen einer nicht quadratischen Diskriminante*, Ph.D. dissertation, Georg-August-Universität, Göttingen, Germany (1912)
- [BG] V. Blomer, A. Granville, *Estimates for representation numbers of quadratic forms*, Duke Math. J. **135** No 2, pp. 261-302 (2006)
- [BF] J. Bourgain, E. Fuchs, *A proof of the positive density conjecture for integer Apollonian circle packings*, J. Amer. Math. Soc. **24**, pp. 945-967 (2011)
- [BGS1] J. Bourgain, A. Gamburd, P. Sarnak, *Affine linear sieve, expanders, and sum-product*, Invent. Math. **179** No. 3, pp. 559-644 (2010)
- [BGS2] J. Bourgain, A. Gamburd, P. Sarnak, *Generalization of Selberg's theorem and Selberg's sieve*, Acta Mathematica **207**, pp. 255-290 (2011)
- [BK] J. Bourgain, A. Kontorovich, *On the Strong Density Conjecture for Integral Apollonian Circle Packings*, arXiv:1205.4416v1 (2012)
- [BGT] E. Breuillard, B. Green, T. Tao, *Approximate subgroups of linear groups*, GAFA **21** No. 4, pp. 774-819 (2011)
- [DRS] W. Duke, Z. Rudnick, P. Sarnak, *Density of integer points on affine homogeneous varieties*, Duke Math. J. **71**, No. 1, pp. 143-179 (1993)
- [EHK] J. Ellenberg, C. Hall, E. Kowalski, *Expander graphs, gonality, and variation of Galois representations*, Duke Math. J. **161** No. 7, pp. 1233-1275 (2012)
- [F1] E. Fuchs, *Counting problems in Apollonian packings*, Bull. Amer. Math. Soc. **50**, pp. 229-266 (2013)
- [F2] E. Fuchs, *Strong Approximation in the Apollonian group*, J. Number Theory **131**, pp. 2282-2302 (2011)
- [FS] E. Fuchs, K. Sanden, *Some experiments with integral Apollonian circle packings*, Exp. Math. **20**, pp. 380-399 (2011)
- [GLMWY] R.L. Graham, J.C. Lagarias, C.L. Mallows, A.R. Wilks, C.H. Yan, *Apollonian circle packings: number theory*, J. Number Theory **100**, pp. 1-45 (2003)

- [H] S. Hoory, N. Lineal, A. Wigderson, *Expander graphs and their applications*, Bull. Amer. Math. Soc. **43**, pp. 439-561 (2006)
- [KO] A. Kontorovich, H. Oh, *Apollonian circle packings and closed horospheres on hyperbolic 3-manifolds*, J. Amer. Math. Soc. **24**, pp. 603-648 (2011)
- [L] A. Lubotzky, *Discrete groups, expanding graphs and invariant measures*, Progress in Math. **125**, Birkhauser Verlag, Berlin (1994)
- [LPS] A. Lubotzky, R. Phillips, P. Sarnak, *Ramanujan graphs*, Combinatorica **8**, 261-277 (1988)
- [M] G. Margulis, *Explicit constructions of expanders*, Problemy Peredaci Informacii **9** No. 4, pp. 71-80 (1973)
- [N] N. Niedermowwe, *The circle method with weights for the representation of integers by quadratic forms*, Journal of Mathematical Sciences **171** No. 6, pp. 753-764 (2010)
- [Nik] V. Nikulin, *Discrete reflection groups in Lobachevsky spaces and algebraic surfaces*, Proceedings of the International Congress of Mathematicians **1** No. 2, Providence, RI, pp. 654-671 (1987)
- [PS] L. Pyber, E. Szabó, *Growth in finite simple groups of Lie type of bounded rank*, arXiv:1005.1858 (2010)
- [R] I. Rivin, *Zariski density and genericity*, International Mathematics Research Notices **2010**.19, pp. 3649-3657 (2010)
- [SS] A. Salehi-Golsefidy, P. Sarnak, *Affine Sieve*, J. Amer. Math. Soc. **26**, pp.1085-1105 (2013)
- [S1] P. Sarnak, *Integral Apollonian Packings*, The American Mathematical Monthly **118** No. 4, pp. 291-306 (2011)
- [S2] P. Sarnak, *Letter to Lagarias*, <http://www.math.princeton.edu/sarnak> (2007)
- [W] B. Weisfeiler, *Strong Approximation for Zariski dense subgroups of semi-simple algebraic groups*, Ann. of Math. **120** No. 2, pp. 271-315 (1984)