

## Subjects for SemAlg 2018 — SECOND PART Combinatorial Game Theory

The two main references still are:

SIEGEL: A.N. Siegel, *Combinatorial Game Theory*, AMS, 2013.

WINNINGWAYS: E.R. Berlekamp, J.H. Conway and R.K. Guy, *Winning Ways for your Mathematical Plays*, 1982/2001. (Note that there are two editions: the first has two volumes, the second has four volumes. Page numbers below refer to the second edition, and somewhat differ from those of the first edition. In all cases: Volume 1.)

And some subjects (in no particular order):

1. Uptimals, SIEGEL, pp. 93–96.
  2. Temperature, SIEGEL, pp. 101–104.
  3. Amazons, SIEGEL, pp. 119–120. (many prerequisites!)
  4. Atomic weight, SIEGEL, pp. 136–140.
  5. Clobber, SIEGEL, pp. 146–148. (uses atomic weight!)
  6. Structure of  $\mathbb{G}$ , SIEGEL, pp. 153–157.
  7. Wythoff, SIEGEL, pp. 197–204 (selection).
  8. Loopy games, SIEGEL, pp. 207–212 and 279–... (two or more presentations?).
- 
9. Domineering, WINNINGWAYS, pp. 119–126 and 138–142.
  10. Toads and frogs, WINNINGWAYS, pp. 12–13, 63–65, 70, 75–76 and 127–137.
  11. Redwood furniture, WINNINGWAYS, pp. 211–214.
  12. ...

[www.liacs.leidenuniv.nl/~kosterswa/semalg/sub2.pdf](http://www.liacs.leidenuniv.nl/~kosterswa/semalg/sub2.pdf)

March 21, 2018