

A FEW REFERENCES; DON KNUTH - BACKTRACKING AND SEQUENTIAL IMPORTANCE SAMPLING DIETZ, JUNE, 2018

- 1) SOME OF DON'S KEY PAPERS: FOR SELF AVOIDING PATHS AND SEQUENTIAL IMPORTANCE SAMPLING, SEE HIS 1976 PAPER: MATHEMATICS AND COMPUTER SCIENCE: COPING WITH FINITENESS, SCIENCE; THIS IS STILL FULL OF CONTENT. ITS BEST TO ACCESS ANY OF DON'S PAPERS THROUGH THEIR UPDATED AND AMENDED VERSIONS IN HIS VARIOUS COLLECTED PAPERS VOLUMES. A TERRIFIC INTRODUCTION TO BACKTRACKING: HIS PAPER (COPY) OF THE SAME NAME IN MATH. COMP. HIS LATER FOLLOWUP 'DANCING LINKS' TAKES THIS MUCH FURTHER. A GREAT, CURRENT SOURCE IS VOL 4 OF THE ART OF COMPUTER PROGRAMMING PRE-PARTS 5B, C
- 2) A BASIC REFERENCE FOR THE THEORY PART OF THIS TALK IS: CHATTERJEE, S. AND DIACONIS, P. (2018) 'ON THE SAMPLE SIZE REQUIRED FOR IMPORTANCE SAMPLING' ON THE ARXIV AND ON MY HOME PAGE.
- 3) FOR EXAMPLES AND DETAILS OF SEQUENTIAL IMPORTANCE SAMPLING FOR EG GRAPHS WITH GIVEN DEGREE SEQUENCES (AND ERDŐS - GALLI THOREM) OR ZERO-ONE TABLES WITH FIXED ROW/COL SUMS (AND GALE-Ryser THEOREM) SEE
 - BLITZSTEIN, J. AND DIACONIS, P. (2011) SEQUENTIAL IMPORTANCE SAMPLING ALGORITHMS FOR GENERATING GRAPHS WITH GIVEN DEGREE SEQUENCES. J. INTERNET. MATH.
 - CHEN, Y., DIACONIS, P., HOLMES, S. AND LIU, J. (2005) SEQUENTIAL MONTE CARLO METHODS FOR STATISTICAL ANALYSIS OF TABLES. JOURN. AMER. STATIST. ASSOC.
- 4) FOR I-CHING MAGIC TACKS, SEE DIACONIS, P. AND GRAHAM, R.L. (2011) MAGICAL MATHEMATICS
- 5) ONE OF THE MOST IMPORTANT DEVELOPMENTS IS THE WORLD OF PARTICLE FILTERS. A GOOD REFERENCE IS MOULINE, E. 'INFERENCE IN HIDDEN MARKOV MODELS' OR ONE OF THE BOOKS BY PIERRE DEL MORAL. THEY GROW MANY TREES AT ONCE, KILLING OFF 'WEAK ONES' AND CLONING 'STRONG ONES' KEEPING THE UNBIASED ASPECT. VERY LITTLE HAS BEEN PROVED IN A USEFUL NON-ASYMPTOTIC SENSE.

Per Diaconis

b) P.D. + BASSETI, COMPARISON BETWEEN IMPORTANCE SAMPLING + METROPOLIS ALG.

MIRENE B.M

'IMPORTANCE SAMPLING'