Dr. David Soloveichik

Tentative Course Schedule (subject to change)

Date	Topic		HW due	Project
January 14	Class introduction	} week 1		
January 16	GPAC			
January 21	GPAC	} week 2		
January 23	Chemical reaction networks			
January 28	Analog electronics, Chaos	} week 3	HW 1	
January 30	ODEs for Discrete Algs			
February 4	Linear threshold units	} week 4	HW 2	
February 6	Linear threshold units			
February 11	Turing universality	} week 5	HW 3	
February 13	Counter machines			
February 18	Cellular automata	} week 6		Presentation 1
February 20	Kolmogorov complexity			(on Friday)
February 25	Uncomputability	} week 7	HW 4	
February 27	Landauer limit			
March 4	Uncomputing	} week 8	HW 5	
March 6	1-1 functions			
March 11	Pebble game	} week 9		
March 13	Pebble game			
SPRING BREAK				
March 25	Reversible circuits	} week 10	HW 6	
March 27	Billiard ball model			
April 1	Analogy to stochastic	} week 11	HW 7	
April 3	Cancellation			
April 8	Cancellation	} week 12		Presentation 2
April 10	Phase query			(on Friday)
April 15	Deutsch-Jozsa algorithm	} week 13	HW 8	
April 17	Shor's algorithm			
April 22	Shor's algorithm	} week 14	HW 9	
April 24	Shor's algorithm			

Analog Computation
Almost anything can compute everything
Reversible Computation
Quantum Computation