

普林斯頓大學回憶

一九七一年，章青駒進入普林斯頓大學 (Princeton) 電機系修習博士學位。普林斯頓雖然名氣不小，卻是個不大的學校，卡內基湖旁綠柳垂蔭，湖上偶然泛舟幾隻。當時只有 26 學系，偏重文史理等學術研究氣息較重的學科，校園優美，充滿美國十七世紀的城堡式建築，校園傳達的訊息一如其學風，寧靜和思考。

普林斯頓理科以物理和數學聞名，電機系的元件物理組卻小得很，課程大多在物理及數學系上。初入學校，心想在台大連中文授課都聽不懂，現在一定更慘了，想不到情況正相反，教授上課觀念講得清楚得不得了，數學演算只大致敘述要點，下課後，習題做一做就貫通得差不多了。因為領助教獎學金，所以有機會上大學部電子學的課，也帶實驗。這一上嚇著了，整張黑板只有電路及波形，不見 Laplace Transform，也不見 Matrix Equation，教授完全以觀念推演何以某個節點，某一段的波形是如此，若是不滿意，可加/減/改變什麼 Components 等等，實驗的題目則是設計電路。過了一學年，趕快向系裡辭職改領研究獎學金，錢少些，但是不必在實驗室丟臉。

普林斯頓給我最大的領悟便是物理學的概念遠比解數學式有用，花五分鐘得個概略解比花一個鐘頭得個精確解重要。現實世界的問題遠比課堂的問題複雜，迅速掌握主要因素，推演其影響.....

普林斯頓的修課：

PRINCETON UNIVERSITY GRADUATE SCHOOL TRANSCRIPT

CHING-CHU CHANG ENTERED THE GRADUATE SCHOOL AT PRINCETON AS A REGULAR STUDENT ON 09/20/71.
RECEIVED MA DEGREE IN ELECTRICAL ENG AND COMPUTER SCI ON 06/10/75 & PHD DEGREE IN ELECTRICAL ENG AND
COMPUTER SCI ON 04/10/76. THIS TRANSCRIPT PREPARED ON 02/11/86.

FALL TERM 1971-1972 (REGULAR STUDENT)			SPRING TERM 1971-1972 (REGULAR STUDENT)		
EECS 481	PHYSICAL & SOLID STATE ELECTRONICS	A	EECS 540	INTRO TO SOLID STATE ELECTRONICS	A
	G. WARFIELD			W.C. JOHNSON	
EECS 489	MATERIALS & SOLID STATE DEVICE LAB	A	MATH 307	ALGEBRA	A+
	W.R. BOTTOMS JR			G. SHIMURA	
MATH 407	ANALYTICAL METHODS OF APPLIED MATH	A	MATH 408	ANALYTICAL METHODS OF APPLIED MATH	A+
	L. ROSEN			L.M. ROSEN	
PHYS 305	INTRO TO THE QUANTUM THEORY	A	PHYS 562	QUANTUM MECHANICS I	N
	J.J. HOPFIELD			L.M. SAUNDERS	
	ASSISTANT IN INSTRUCTION - FULL TIME				
	ASSISTANT IN RESEARCH - FULL TIME				

FALL TERM 1972-1973 (REGULAR STUDENT)			SPRING TERM 1972-1973 (REGULAR STUDENT)		
EECS 541	ELECTRONIC ACTIVITY IN INSULATORS	A	PHYS 502	ELECTRICITY & MAGNETISM	N
	M.A. LAMPERT			A.S. BLAER	
EECS 542	SURFACE PHY OF SEMICONDUCTOR & INSULATOR	A	PHYS 525	INTRODUCTION TO SOLID STATE PHYSICS	N
	STAFF			S.T. CHUI	
EECS 545	ELECTRONIC DEVICES	A		ASSISTANT IN INSTRUCTION - FULL TIME	
	W.C. JOHNSON				
PHYS 501	ELECTRICITY & MAGNETISM	N			
	A.S. BLAER				
	ASSISTANT IN INSTRUCTION - FULL TIME				
	ASSISTANT IN RESEARCH - FULL TIME				

FALL TERM 1973-1974 (REGULAR STUDENT)			SPRING TERM 1973-1974 (REGULAR STUDENT)		
PHYS 511	THERMODYN, KINETIC THEORY & STATIS MECH	N	EECS 543	TRANSPORT PROCESSES IN SOLIDS	AUD
	S.B. TREIMAN			R. ALIG	
	ASSISTANT IN RESEARCH - FULL TIME		PHYS 558	STATISTICAL PHYSICS	*
				S.B. TREIMAN	

FALL TERM 1974-1975 (REGULAR STUDENT)			SPRING TERM 1974-1975 (REGULAR STUDENT)		
	ENROLLED STUDENT PURSUING NO COURSES			ENROLLED STUDENT PURSUING NO COURSES	
	ASSISTANT IN RESEARCH - FULL TIME			ASSISTANT IN RESEARCH - FULL TIME	

C. ANTHONY BROH, REGISTRAR

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CHANG---CONTINUATION OF TRANSCRIPT

LANGUAGE EXAM IN GERMAN PASSED ON 12/01/72

GENERAL EXAM PASSED ON 05/21/73

ENROLLMENT TERMINATED - DEGREE CANDIDACY CONTINUES 06/11/75

DISSERTATION TITLE IS: STUDY OF LATERAL NONUNIFORMITIES AND INTERFACE STATES IN MIS STRUCTURES



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