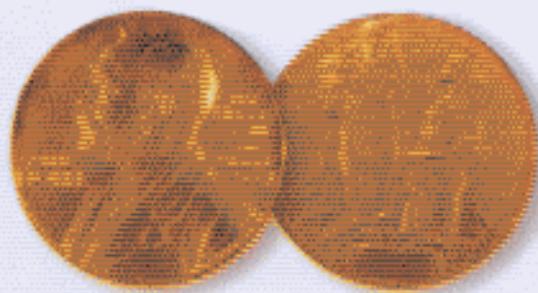


NOBEL LECTURES



P H Y S I C S

1996 - 2000

CONTENTS

Foreword	v
Preface	vii
1996 DAVID M. LEE, DOUGLAS D. OSHEROFF and ROBERT C. RICHARDSON	
Presentation by Carl Nordling	3
Biography of David M. Lee	7
<i>The Extraordinary Phases of Liquid ^3He</i>	11
Biography of Douglas D. Osheroff	53
<i>Superfluidity in $^3\text{He}: Discovery and Understanding$</i>	58
Biography of Robert C. Richardson	85
<i>The Pomeranchuk Effect</i>	91
1997 STEVEN CHU, CLAUDE N. COHEN-TANNOUDJI and WILLIAM D. PHILLIPS	
Presentation by Bengt Nagel	111
Biography of Steven Chu	115
<i>The Manipulation of Neutral Particles</i>	122
Biography of Claude N. Cohen-Tannoudji	161
<i>Manipulating Atoms with Photons</i>	166
Biography of William D. Phillips	193
<i>Laser Cooling and Trapping of Neutral Atoms</i>	199

1998	ROBERT D. LAUGHLIN, HORST L. STÖRMER and DANIEL C. TSUI	
	Presentation by Mats Jonson	241
	Biography of Robert D. Laughlin	245
	<i>Fractional Quantization</i>	264
	Biography of Horst L. Störmer	289
	<i>The Fractional Quantum Hall Effect</i>	295
	Biography of Daniel C. Tsui	327
	<i>Interplay of Disorder and Interaction in Two-Dimensional Electron Gas in Intense Magnetic Fields</i>	330
1999	GERARDUS 't HOOFT and MARTINUS J.G. VELTMAN	
	Presentation by Cecilia Jarlskog	343
	Biography of Gerardus 't Hooft	347
	<i>A Confrontation with Infinity</i>	359
	Biography of Martinus J.G. Veltman	373
	<i>From Weak Interactions to Gravitation</i>	381
2000	ZHORES I. ALFEROV, HERBERT KROEMER and JACK S. KILBY	
	Presentation by Tord Claeson	401
	Biography of Zhores I. Alferov	405
	<i>The Double Heterostructure: Concepts and Its Applications in Physics, Electronics and Technology</i>	413
	Biography of Herbert Kroemer	443
	<i>Quasi-Electric Fields and Band Offsets: Teaching Electrons New Tricks</i>	449
	Biography of Jack S. Kilby	471
	<i>Turning Potential Into Realities: The Invention of the Integrated Circuit</i>	474