

Lecture Notes in Physics

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Laser Physics

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Edited by J.D. Harvey and D.F. Walls



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PREFACE

This volume contains the lecture notes delivered at the third New Zealand Symposium on Laser Physics, held at the University of Waikato, Hamilton, from January 17th to 23rd 1983. This meeting like the previous ones held in 1977 and 1980 brought together a group of about 60 physicists working in both experimental and theoretical laser physics from many countries. One of the strengths of these meetings lies in the new interactions and collaborative efforts generated by lectures and discussions between physicists working in what sometimes seem to be disparate areas.

Currently one of the most interesting and fast developing areas in laser physics concerns optical bistability and the transition to chaotic behaviour of optical systems, and this theme runs through many of the papers presented here.

The editors would like to express their gratitude to the lecturers for providing detailed notes for publication shortly after the meeting, and to the various organisations who provided financial support. These include the New Zealand Institute of Physics (Inc.), the British Council, the Royal Society of New Zealand, the University of Waikato and the following Companies:- Spectra Physics Inc., Quentron Optics Pty, Radiation Research, Exciton, Spex, Oriel, Lumonics, Burleigh Instruments and Scientec.

The success of this meeting and the relaxed atmosphere of the University Campus in mid-summer have established the Symposium as a triennial event. We look forward to another stimulating and productive meeting in 1986.

Hamilton, New Zealand

J.D. Harvey

March 1983

D.F. Walls

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