



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية  
@ ASUNET



# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأفلام قد أعدت دون أية تغيرات



## يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of  
15-25- c and relative humidity 20-40%

# بعض الوثائق الأصلية تالفة

# بالرسالة صفحات لم ترد بالاصل



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*Interaction of an Atom (or More) with a Finite  
Number of Energy Levels with Light*

***A THESIS***

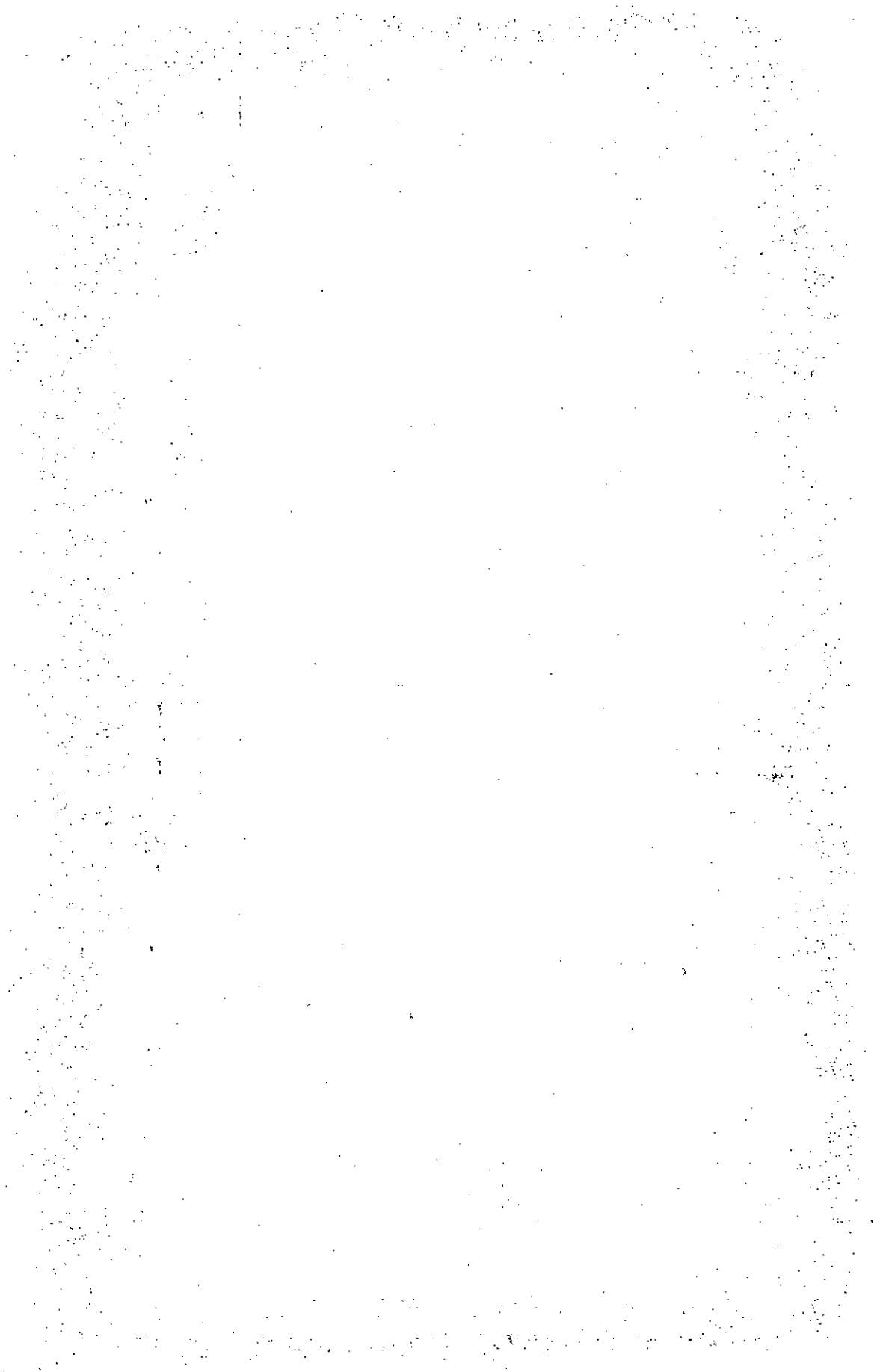
*Submitted to the Faculty of Science  
(Sohag) South Valley University*

*Submitted to Fulfill the Requirements of the Degree of Doctor of Philosophy  
(Quantum Mechanics)*

*By*

*Mahmoud Mohamed Ahmed Abdel-Aty*

**1420-1999**





South valley university  
Faculty of science (Sohag)

## *Approval Sheet*

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**Title :** *Interaction between an Atom (or More) with a Finite Number of Energy Levels with Light*

**Degree:** *Ph. D.*

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### *Faculty Board of Graduate Studies*

Prof. M. Mustafa  
Vice - Dea: For Graduate  
Studies and Researches





# *ACKNOWLEDGEMENTS*

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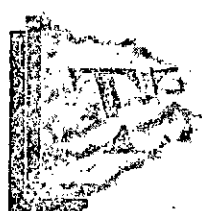
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The collaboration with Prof. Peter Lambropoulos Head of the Theory Group at Max-Plank-Institut für Quantenoptik, Garching, Germany, has been a pleasant and very inspiring experience, personally and professionally. Also, I would like to thank R. Weise-McKnight. I found the atmosphere in the Theory Group at the Max-Plank-Institut continuously kept me in a state of great enthusiasm for doing good research. Furthermore, I would like to express my great thanks to Prof. G. S. Agarwal, Prof. A. Buchleitner, P. Schlagheck, A. Krug, W. T. Younes, N. Metwaly, and T. Wellens for their kind help.

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# *ABSTRAC*



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