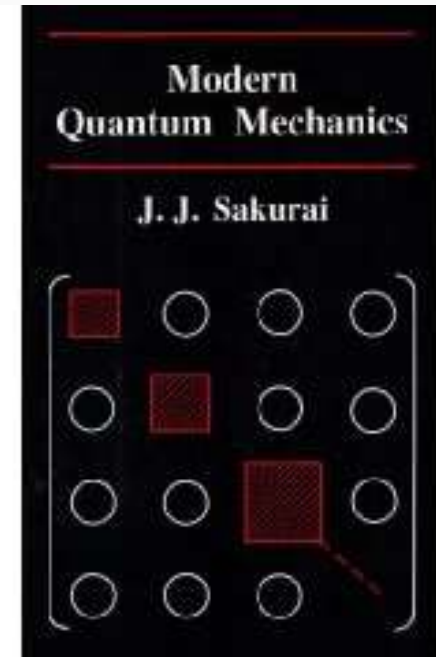
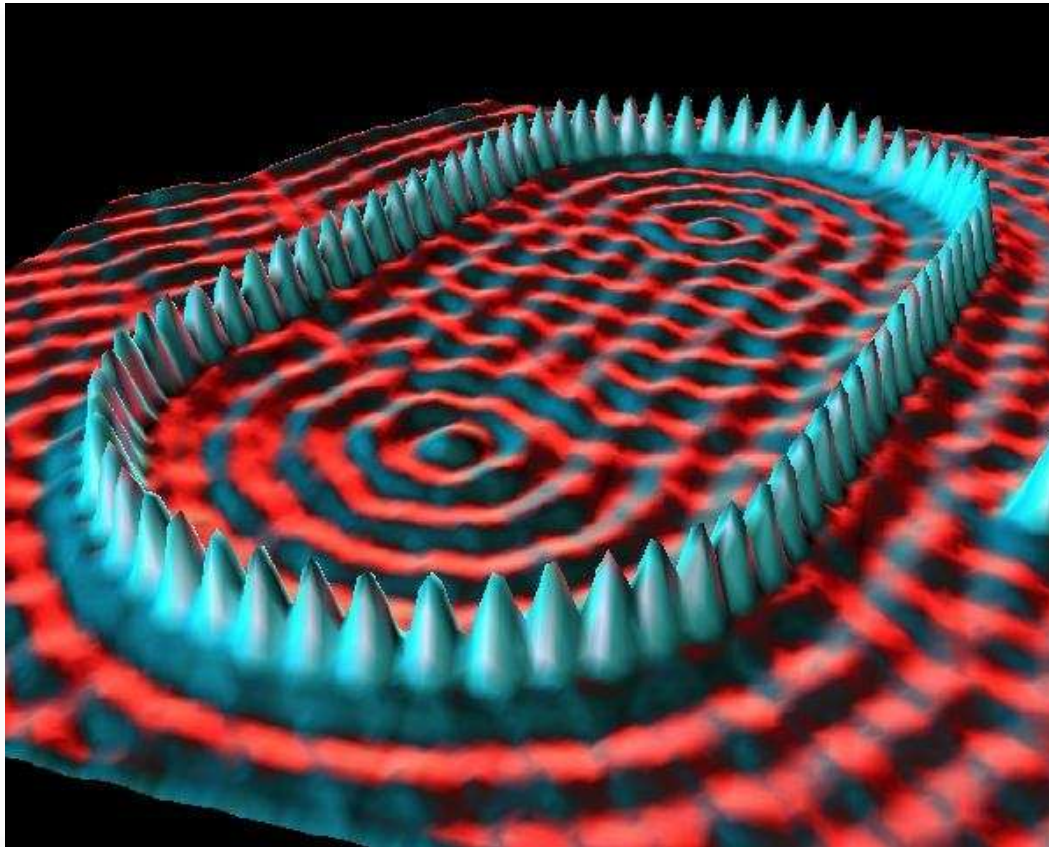


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

با نام و یاد خداوند متعال و با استعانت از حضرت حق

شروع نیمسال تحصیلی دوم بر شما شادانشجویان محترم مبارک باد



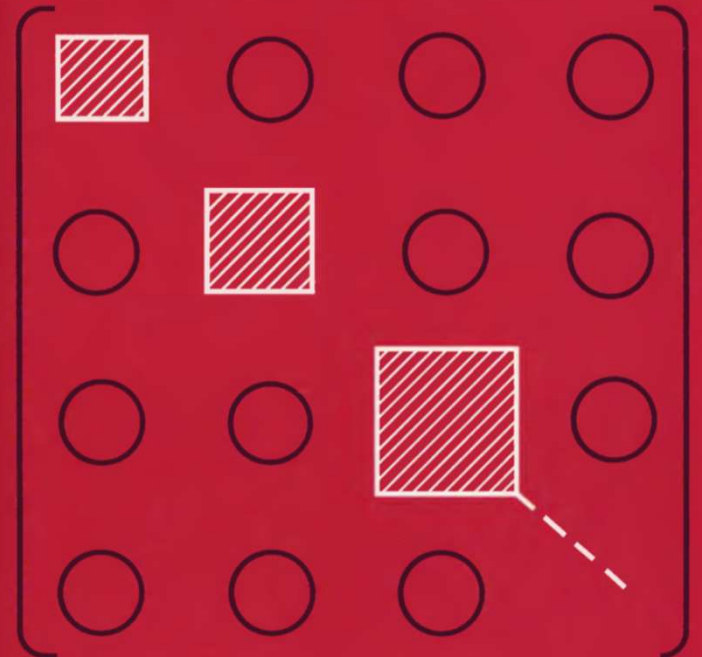
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- 2) Leslie E. Ballentine , Quantum Mechanics A Modern Development, (2000).
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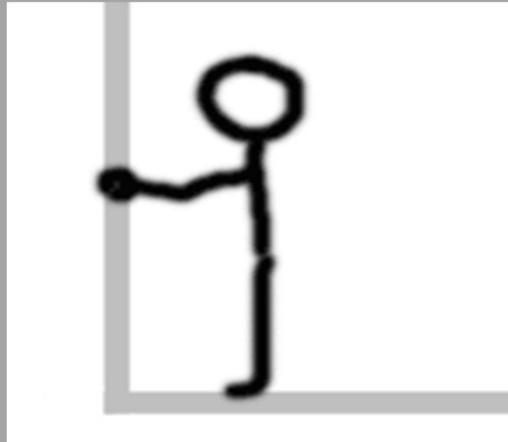
Main Reference

Modern Quantum Mechanics

J. J. Sakurai



Revised Edition



Homework

You would give me your homework per week at my office
not in class or under my door.

You can work with others on homework (I encourage you to do so!),
but write it yourself.

The Importance of Having Class

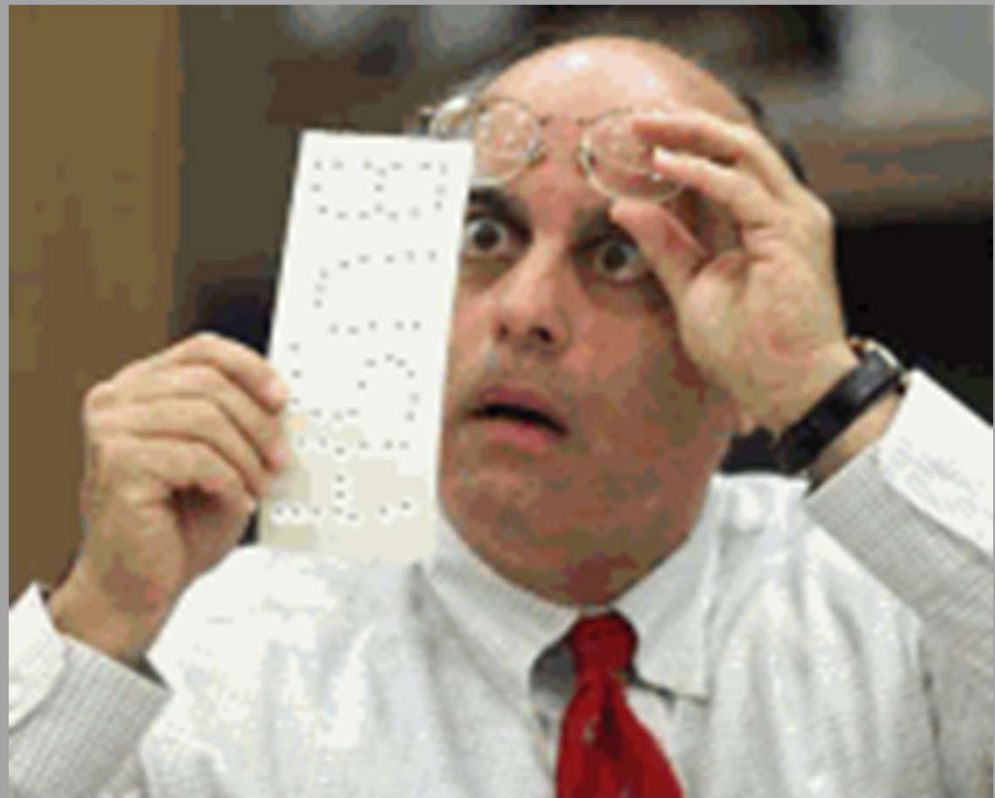
In the past, people who have skipped a lot of classes have received very bad grades. Conversely, people who've come to all of the classes nearly always receive good scores.

You should come to the class because your score depends on your presence.



Understanding the ideas of each lecture requires the knowledge of the previous lectures.

If you keep up,
you won't end up
looking like this
the night before
the exams!



Evaluation Procedure:

Midterm (30% or 25%) + Final (30% or 35%) + Solving Problems of Chapters (10%) + Activity in Class (10%) + Homework (10%) + Presentation (10%).

نتیجہ امتحان

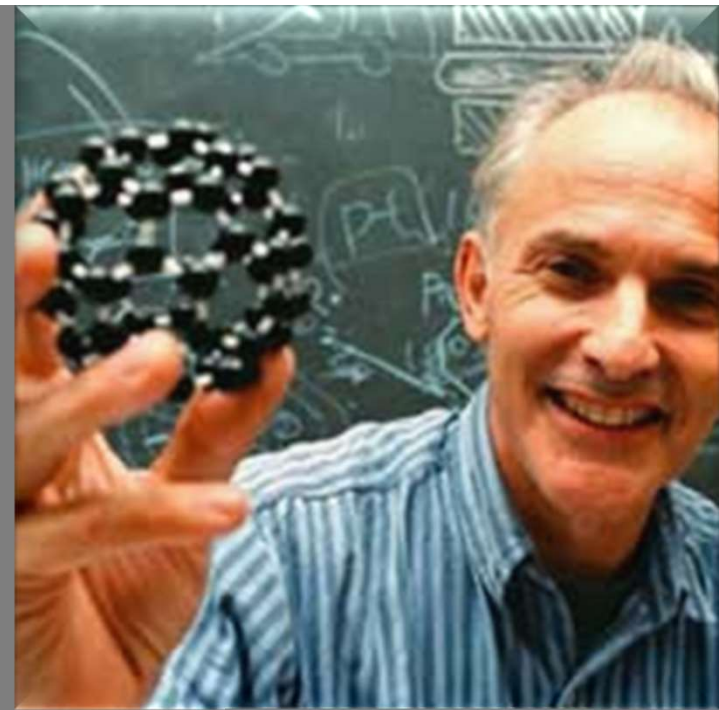
میان ترم : شنبہ 91/01/26 ساعت 8 تا 10 کلاس 9
پایان ترم : یک شنبہ 91/03/28 ساعت 9 تا 12 کلاس 8



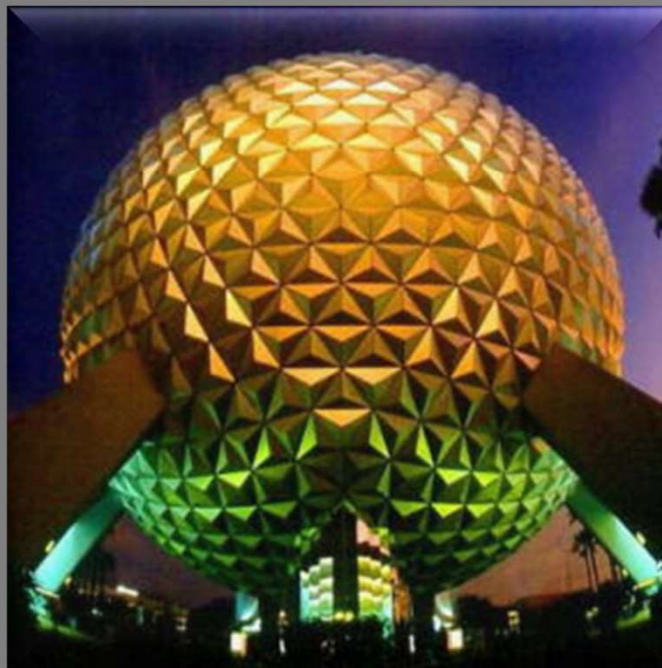
Leonardo da Vinci
1452 (Italy)-1519 (France)



Richard Buckminster Fuller
1895-1983

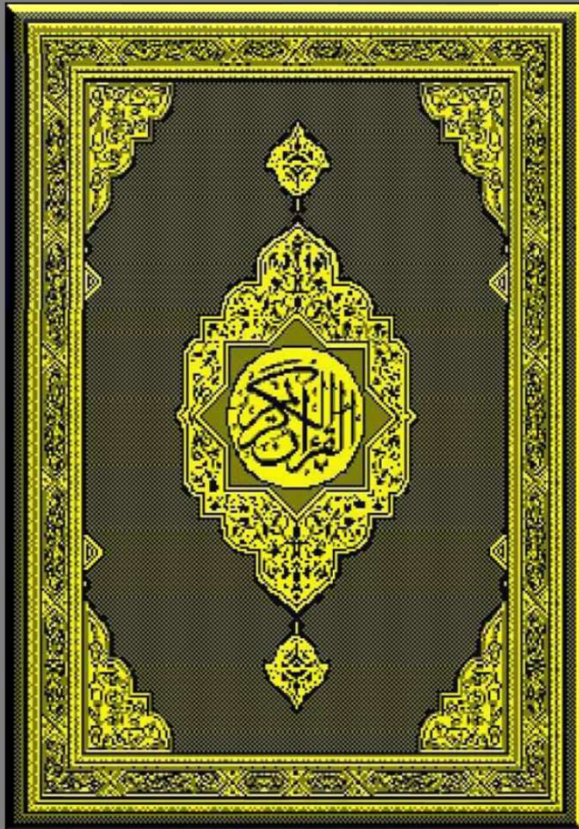


Harry Kroto, 1939



Al-Rad Sura of Quran

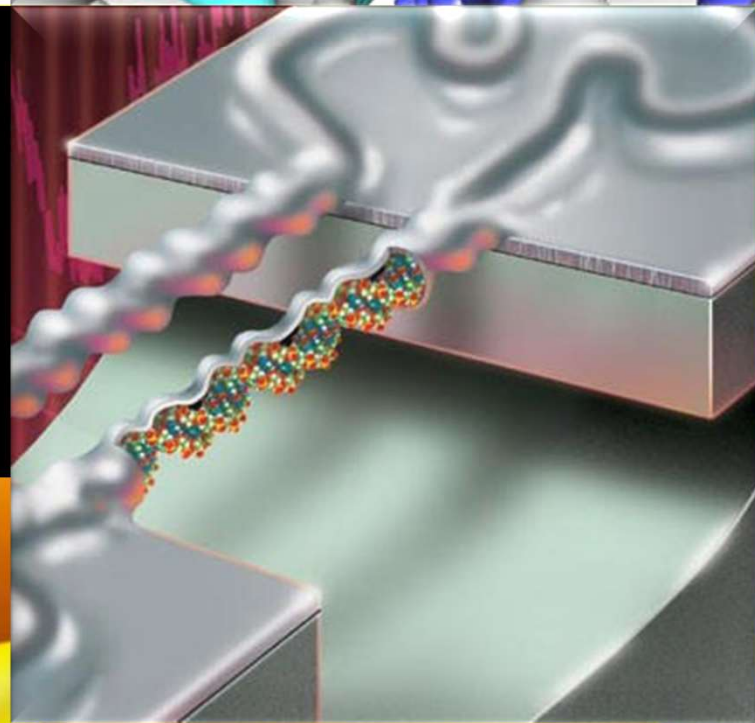
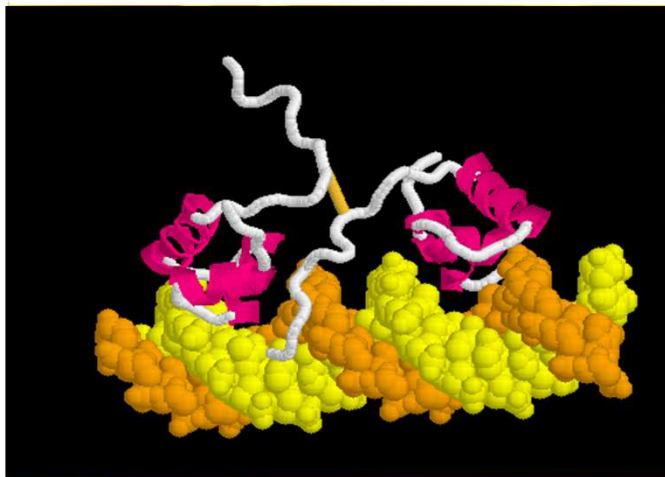
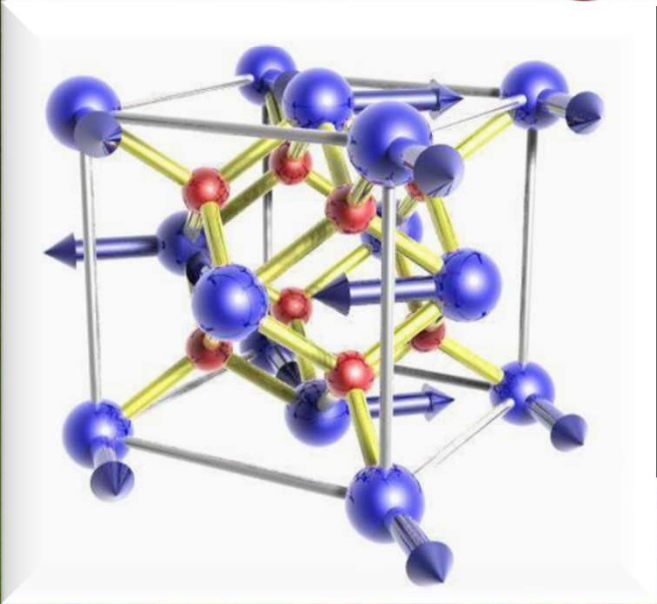
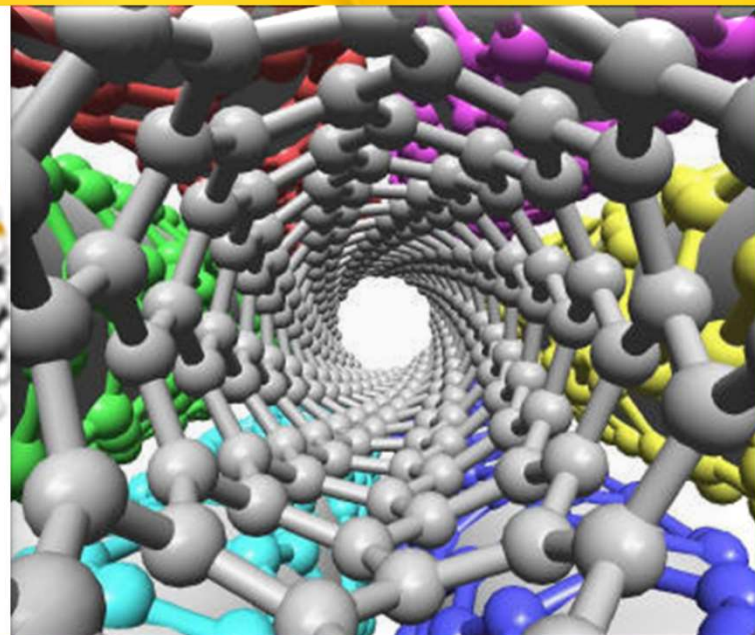
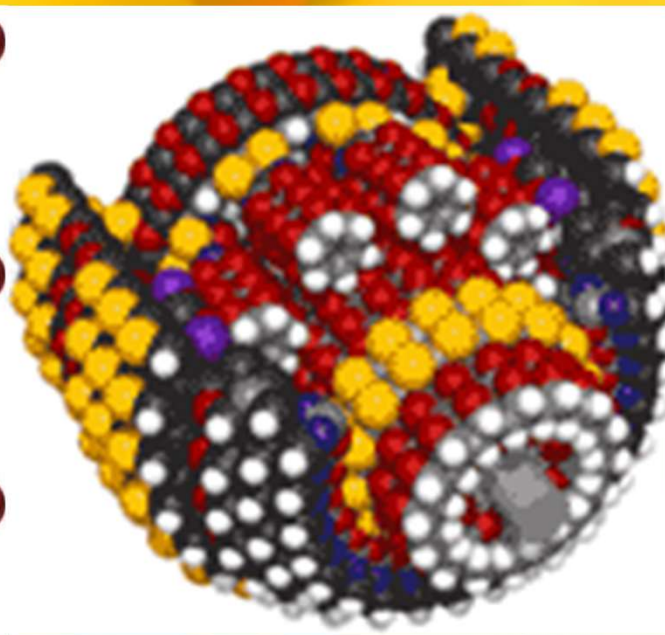
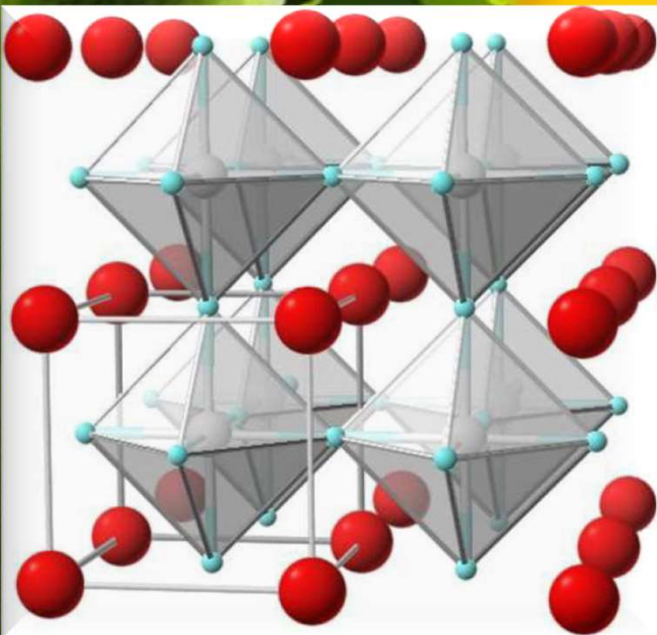
In the name of Allah, the Beneficent, the Merciful



اللَّهُ الَّذِي رَفَعَ السَّمَوَاتِ بِغَيْرِ
عَمَدٍ تَرَوْنَهَا ثُمَّ أَسْتَوَى عَلَى
الْعَرْشِ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ
كُلٌّ يَجْرِي لِأَجَلٍ مُّسَمًّى يُدَبِّرُ
الْأَمْرَ يُفَصِّلُ الْآيَاتِ لَعَلَّكُمْ
بِلِقَاءِ رَبِّكُمْ تُوقِنُونَ (2)



Allah it is who raised up the universe without visible supports, then mounted the Throne, and compelled the sun and the moon to be of service, each runneth unto an appointed term; He ordereth the course; He detaileth the revelations, that haply ye may be certain of the meeting with your Lord. (2)

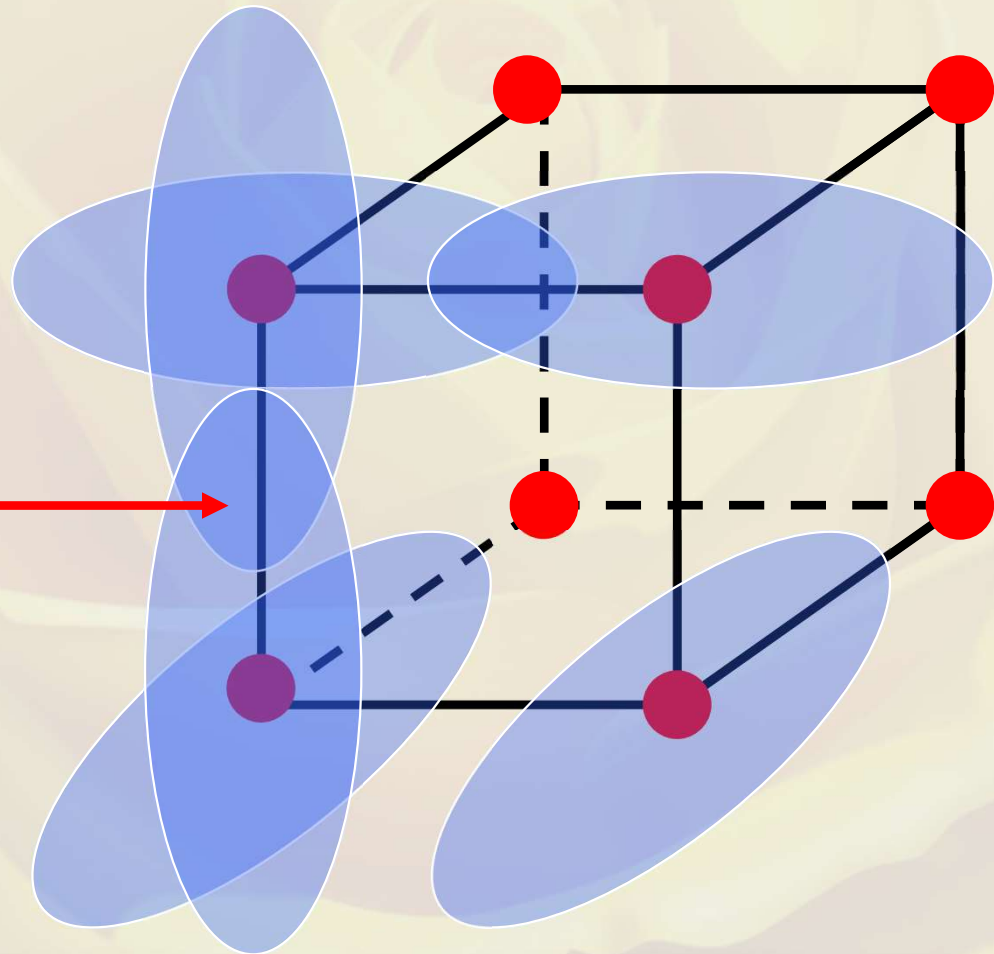


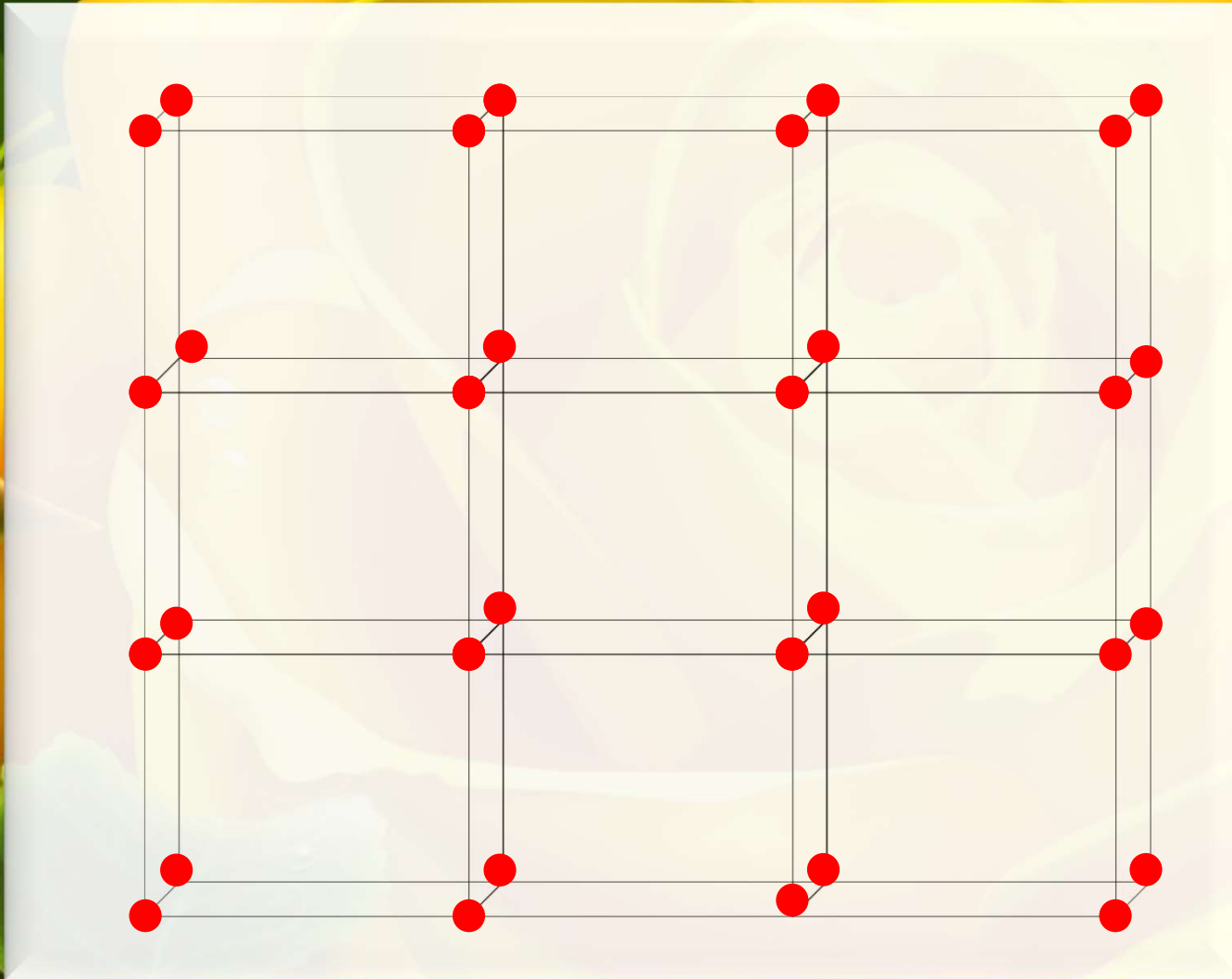
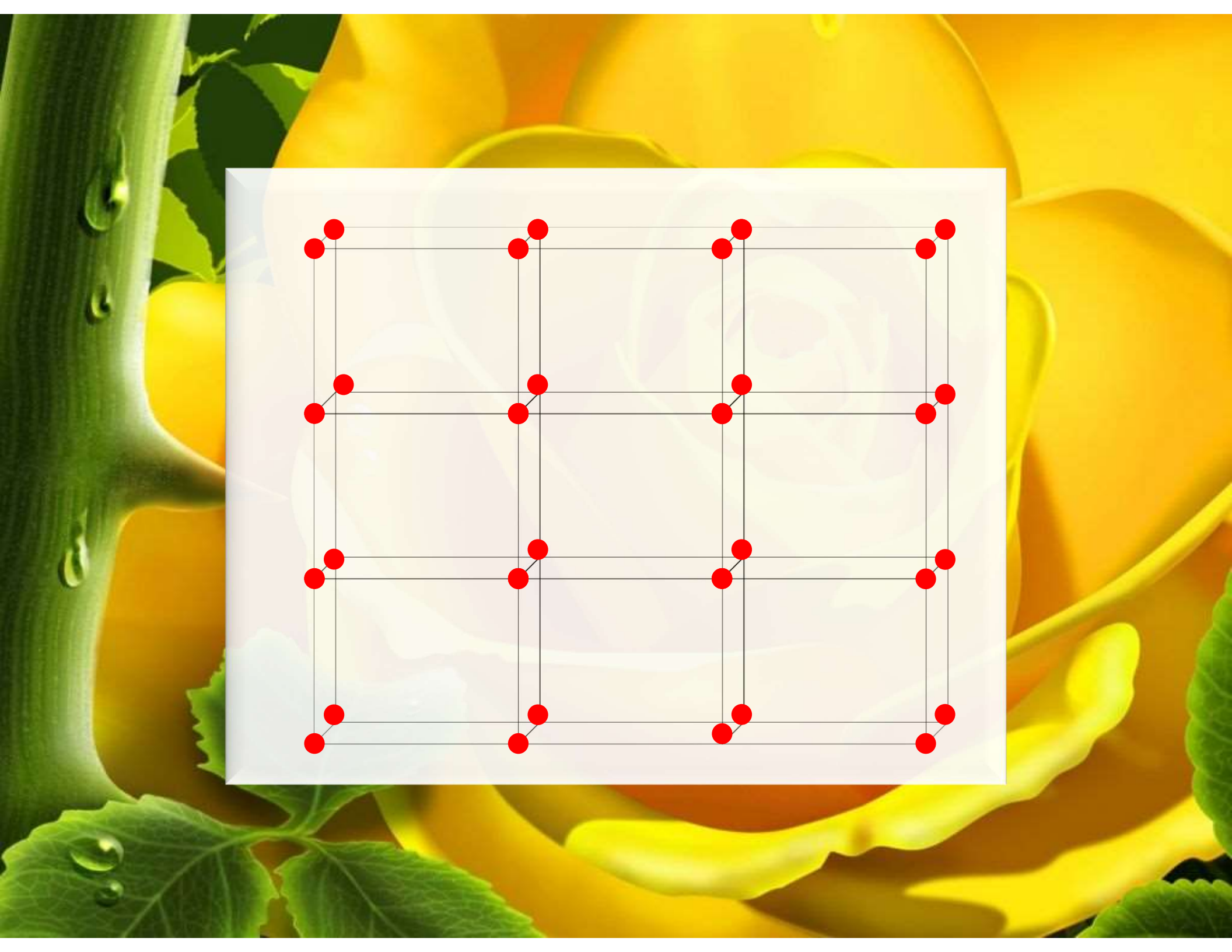


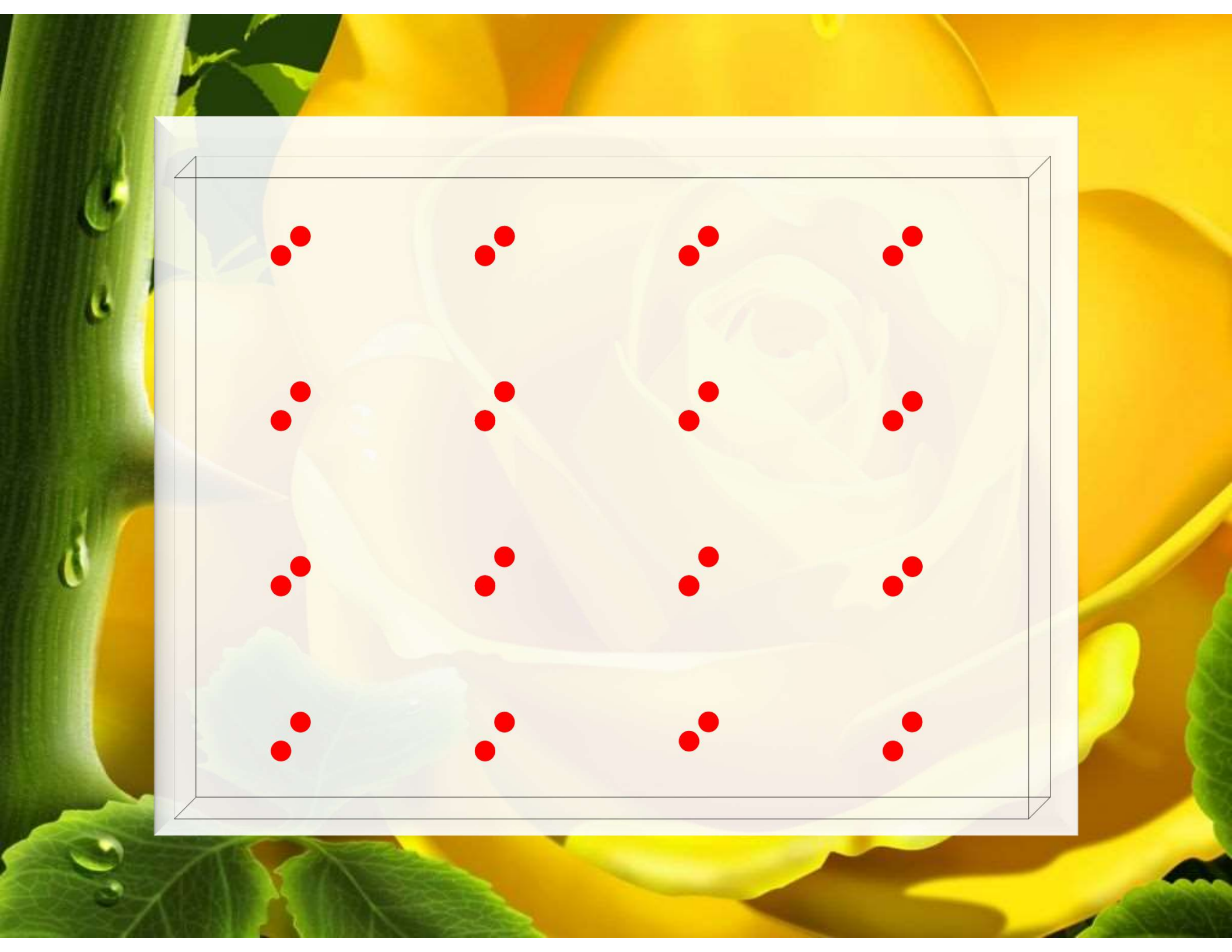
The classical ideal gas

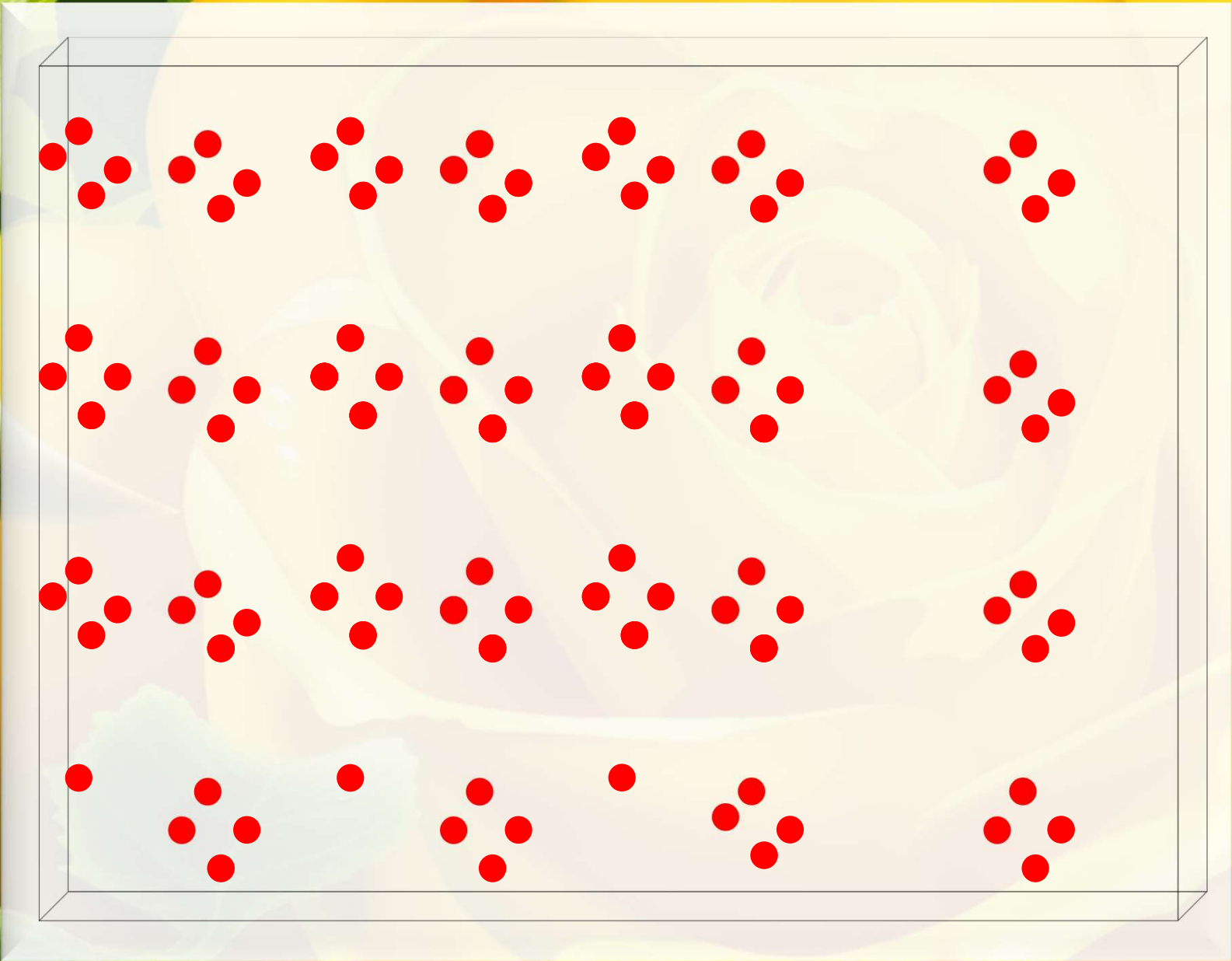
$$H\Psi = E\Psi$$

$$H = T + V \longrightarrow$$









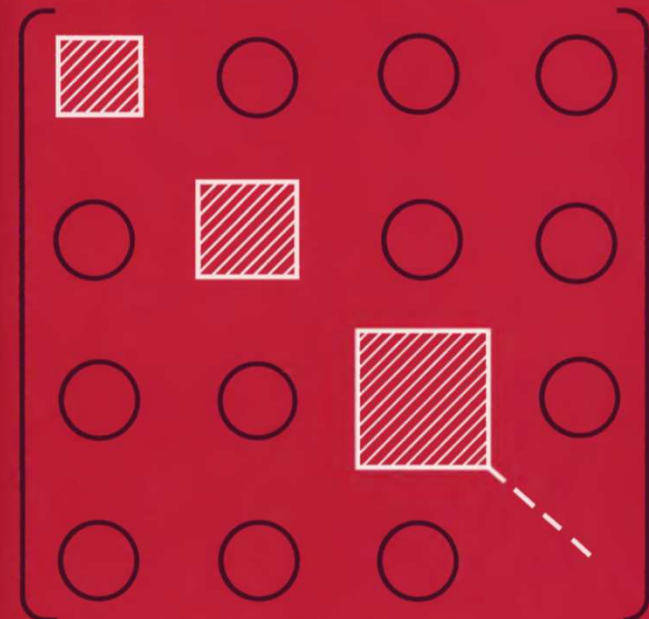
Modern Quantum Mechanics



J. J. Sakurai (1933-1982)

Modern Quantum Mechanics

J. J. Sakurai



Revised Edition

What we will learn

Modern Quantum Mechanics I

1) FUNDAMENTAL CONCEPTS

2) QUANTUM DYNAMICS

3) THEORY OF ANGULAR MOMENTUM

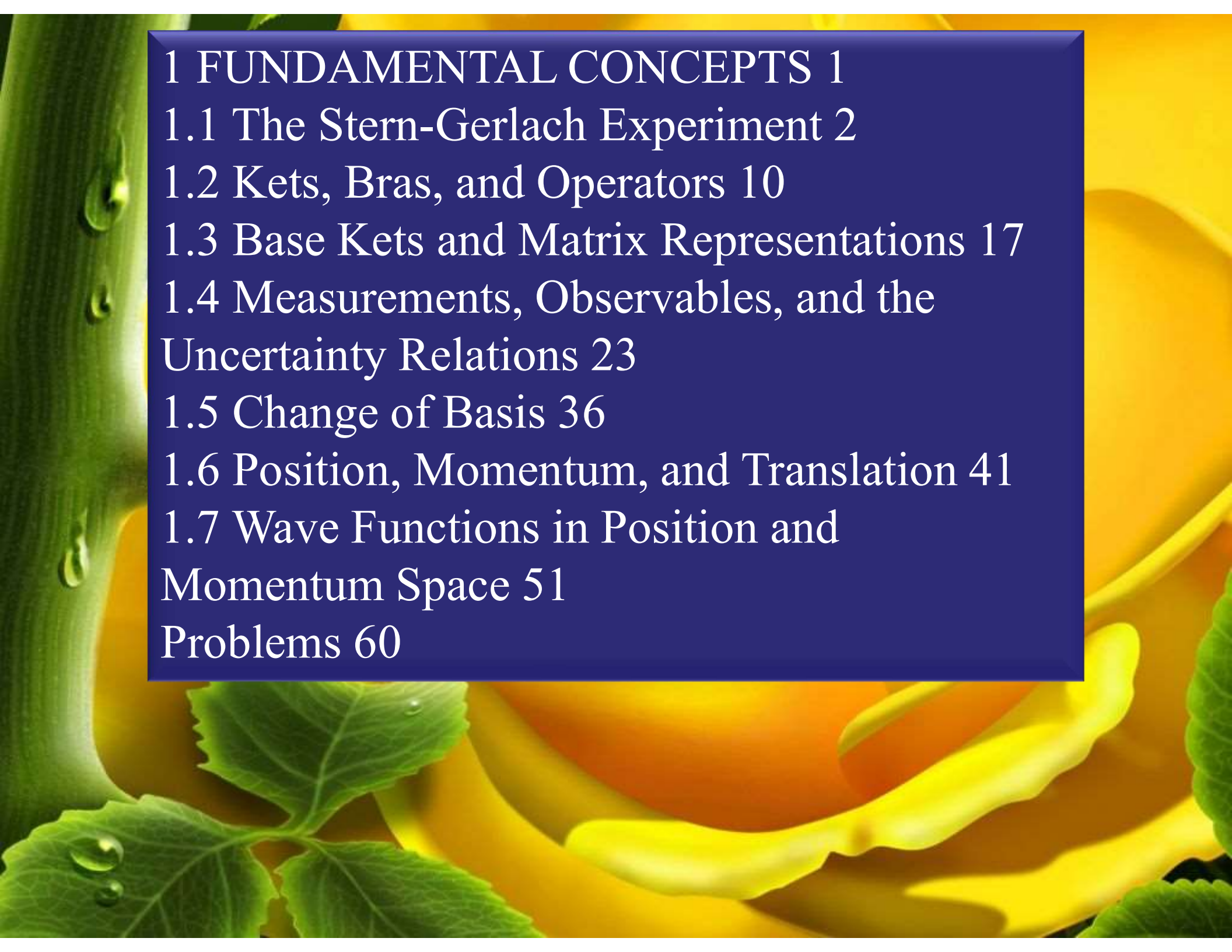
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4) SYMMETRY IN QUANTUM MECHANICS

5) APPROXIMATION METHODS

6) IDENTICAL PARTICLES

7) SCATTERING THEORY



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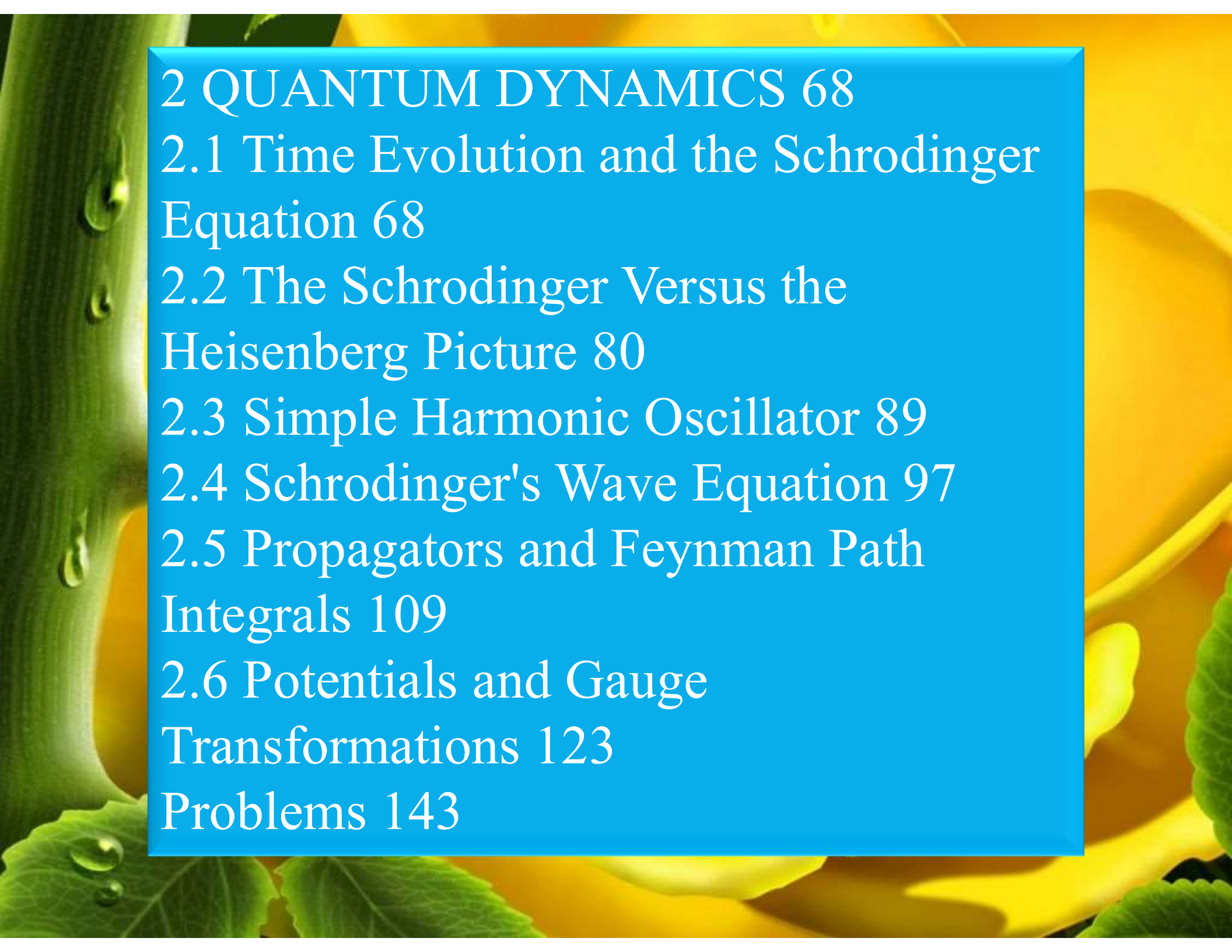
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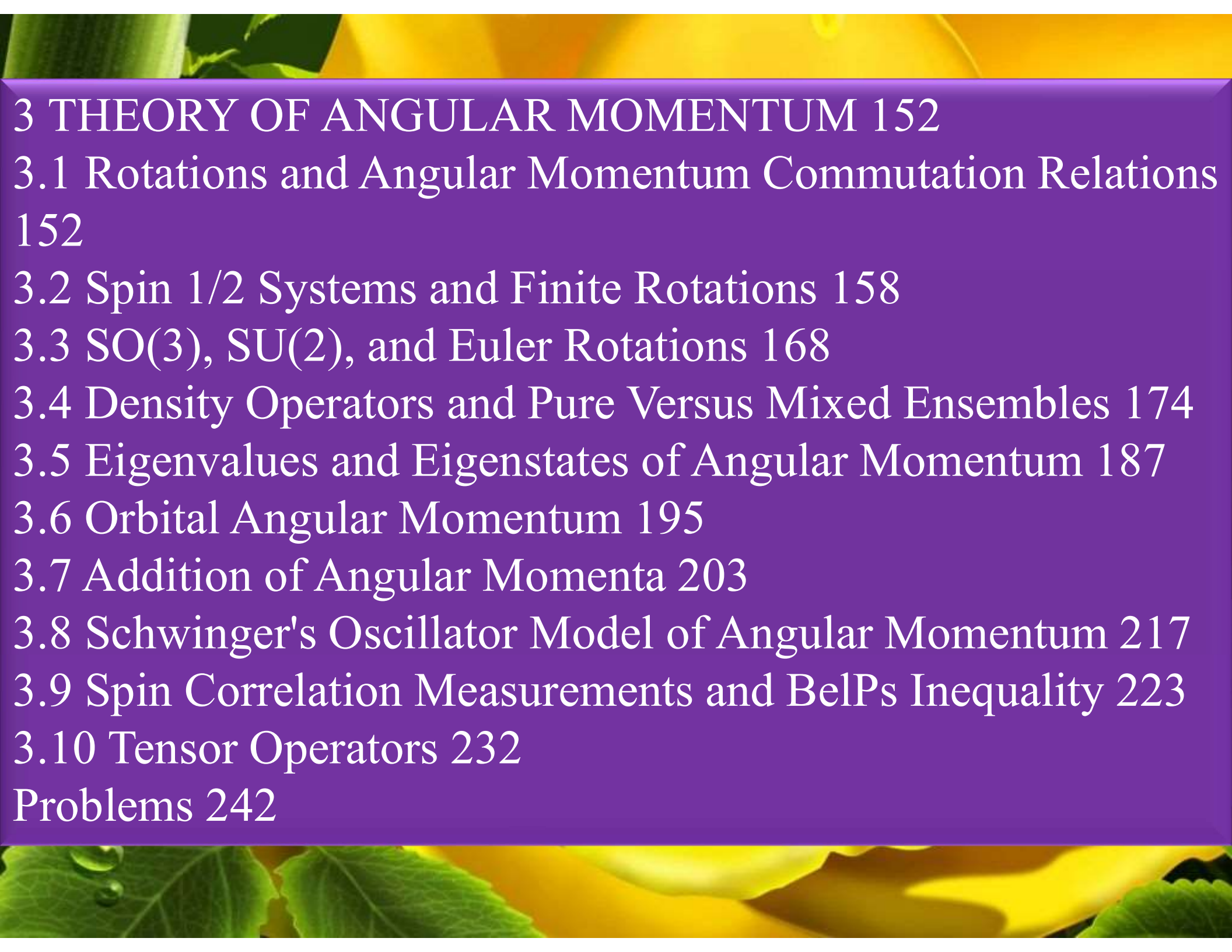
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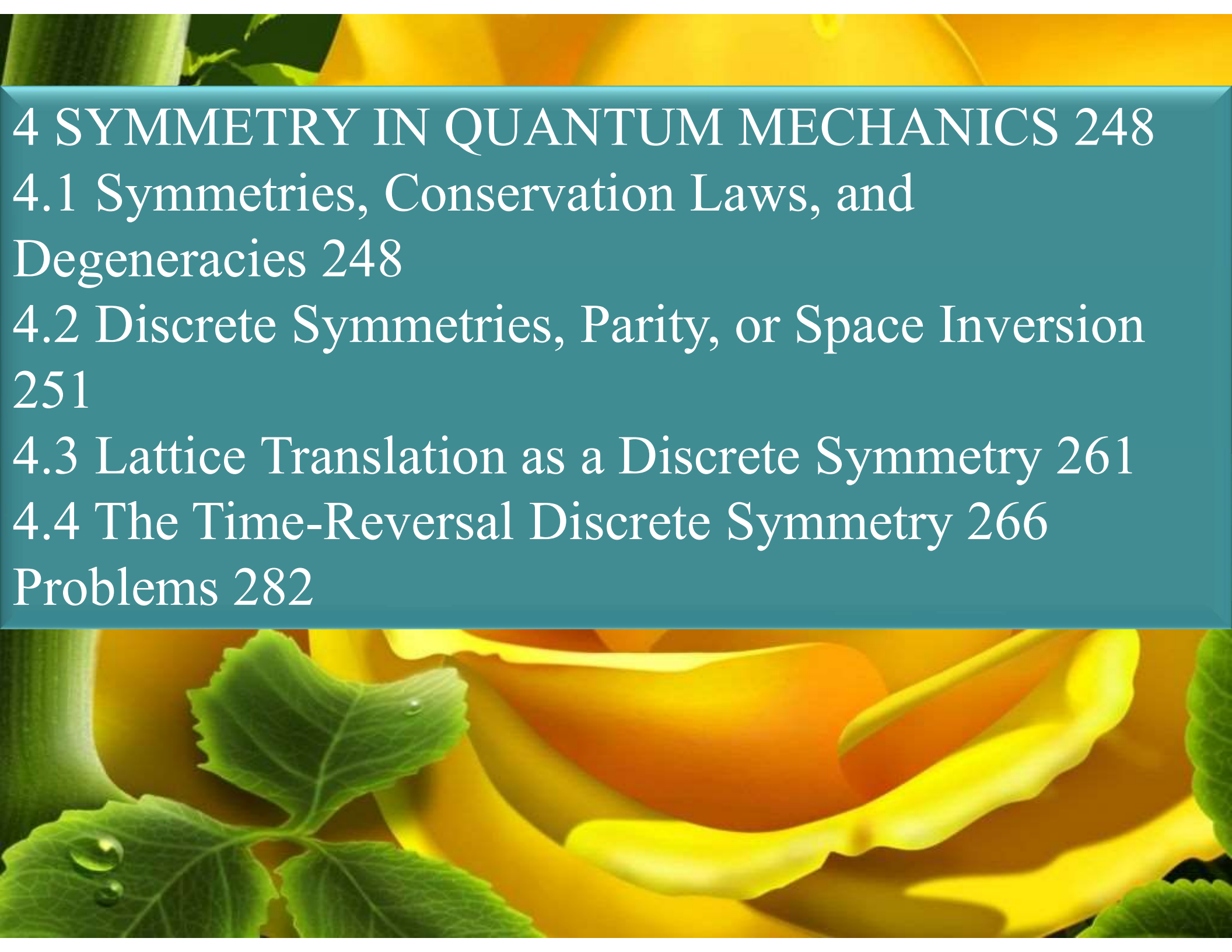
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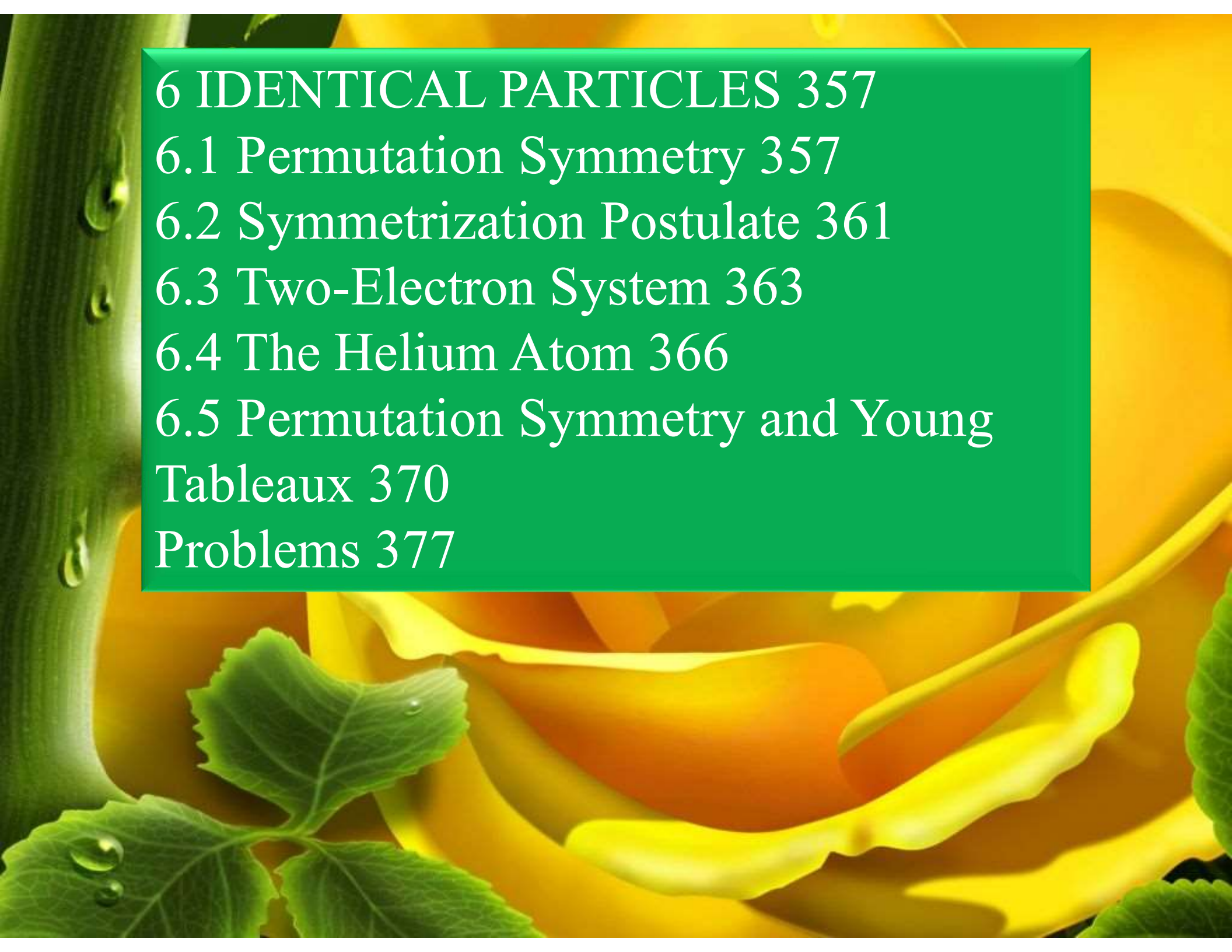
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