



Full title at the beginning

Bachelor Thesis

Prenume NUME

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Outline

- 1 Introduction
- 2 Section title
 - Subsection title
 - Another subsection
 - The last section
- 3 Another section
 - Some definitions
 - Subsection
 - Last subsection
- 4 Conclusions

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1 Introduction

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4 Conclusions

- The aim of this thesis is to study something.

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- Item and formula

$$\mathcal{H}(q_1, \dots, q_n, \frac{\partial \mathcal{S}}{\partial q_1}, \dots, \frac{\partial \mathcal{S}}{\partial q_n}, t) + \frac{\partial \mathcal{S}}{\partial t} = 0$$

- Formulae aligned on one line

$$l_k = \frac{1}{2\pi} \oint p_k \mathrm{d}q_k, \quad \theta_k = \omega_k(l_k) \Delta t$$

- An item with some text. And an *emphasized* word.
- Don't write too much on a slide.

Frame title

- Canonical perturbation theory exploits the special properties of action-angle variables.

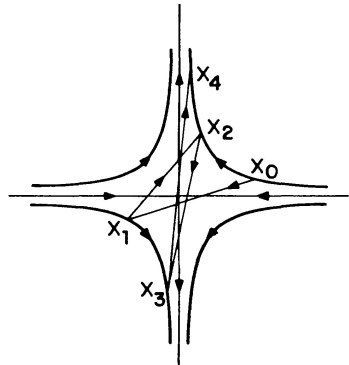
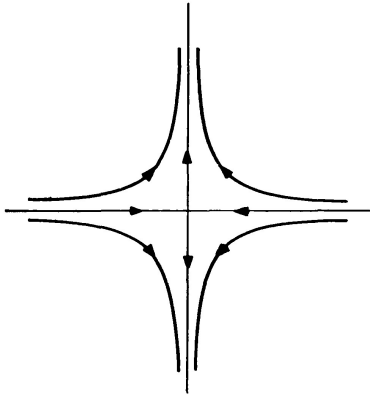
$$\mathcal{H}(I, \theta) = \mathcal{H}_0(I) + \epsilon \mathcal{H}_1(I, \theta).$$

- The basic idea of canonical perturbation theory is to find the new set of action-angle variables (J, φ) for the perturbed system $\mathcal{H}(I, \theta)$ such that there is a canonical transformation to a new Hamiltonian which depends only on J , that is

$$\mathcal{H}(I, \theta) \rightarrow K(J).$$

Numbered lists

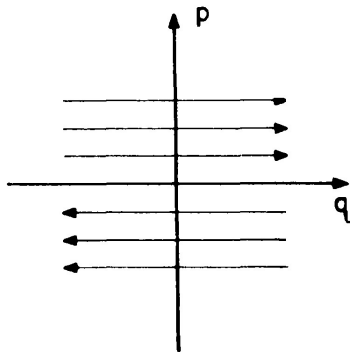
- 1 First item
- 2 Do not hardcode numbers in titles or section names. The name should be descriptive. The same applies to labels.
- 3 For quotes you should use “this”.
- 4 You can split the frame in columns. See for example the next frame which features two images side by side



- This an example in which we intercalate an image with text without alignment

$$\begin{bmatrix} \delta x_{i+1} \\ \delta y_{i+1} \end{bmatrix} = \begin{bmatrix} 1 & c \\ 0 & 1 \end{bmatrix} \begin{bmatrix} \delta x_i \\ \delta y_i \end{bmatrix},$$

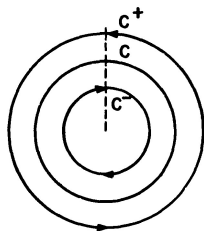
Here is some text to fill space:
This corresponds to a translation parallel to the x-axis. This is known as a *parabolic* fixed point.



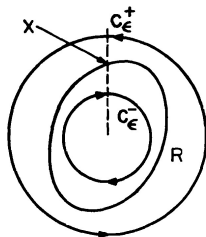
- If you can not fit all the short subsection titles maybe you have too many of them.
- We present an example of text aligned with an image. The solution is not perfect, but it works as a first order approximation. The width of the columns may need to be changed ny trial and error.
- Text and formulae to fill space

$$\begin{bmatrix} \varphi' \\ I' \end{bmatrix} = T \begin{bmatrix} \varphi \\ I \end{bmatrix},$$

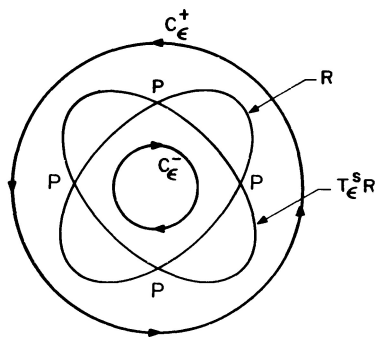
then *every* point on \mathcal{C} is a fixed point of T^S .



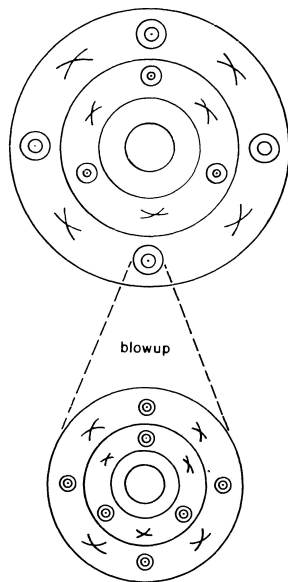
- Now we consider an example with two items. As with the previous example the alignment is not perfect.
- And the space will be filled with random text: the relative twists of \mathcal{C}^+ and \mathcal{C}^- are preserved under T^S .
- If this is so, then there must be only one point between \mathcal{C}^+ and \mathcal{C}^- whose angular coordinate φ is conserved under T^S .
- In fact, along each radius (emanating from the centre) there must be one such point, so we can draw a curve R of these points.



- An example with a centered figure
- below the items



- Now, finally we consider an example with a large image on the right side.
- Notice that the items, while perfectly aligned on this frame, are not perfectly aligned with the ones on the previous frame, but the alignment is very close to perfection.
- The dimensions of the columns in these examples should work in most cases. The third column is needed to align the items with the ones on the previous slide.



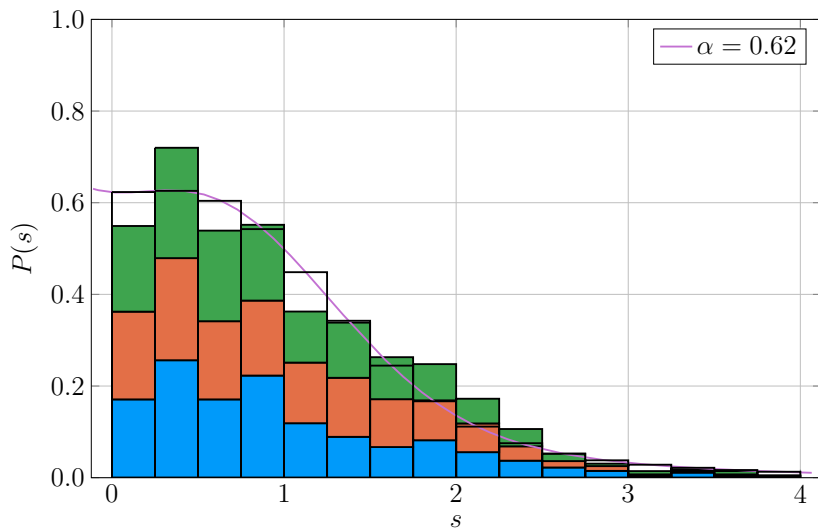


Figure: Full frame figure with caption

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Definition (Joint probability)

Given two events A and B , their joint probability, $P(A \cap B)$, is the probability of the two events to occur simultaneously.

Theorem (Pythagorean theorem)

This is a theorem about right triangles and can be summarised in the next equation

$$x^2 + y^2 = z^2$$

- Some examples of definitions.

Block examples

The block title

This content of the block appears like this.

Another block with some text

This conjecture states that the nearest neighbour distribution of a quantum system with a classically chaotic counterpart is given by the Wigner distribution.

- This is an example of how to split a long formula

$$\begin{aligned}\mathcal{H}(q_0, p_0, q_2, p_2) = & \frac{A}{2}(p_0^2 + p_2^2 + q_0^2 + q_2^2) \\ & + \frac{B}{\sqrt{2}}q_0(3q_2^2 - q_0^2) + \frac{D}{4}(q_0^2 + q_2^2)^2\end{aligned}$$

- Some empty frames will follow. Use them when creating new frames.

Empty frame with title









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Conclusions

- Many hours of sleep were lost for this thesis.
- Replace this text with your actual conclusions.
- I hope this was useful.