

Aims and limitations

Section no. 2

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The basics of the DMC code

Jørgen Høgberget

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 - split screen
 - Pictures
 - joining picture and lists
 - pictures which need more space

What can it do?

Quantities of interest

- Ground state energies and densities.
- Energy distributions.

Implemented Systems

- Harmonic oscillator systems (2D, 3D, doublewells)
- Atomic systems (Atoms, homonuclear diatomic molecules)

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Underlying goals and assumptions

In a nutshell

Ab-initio, Efficiency, Transparency

Specifics: Assumptions

- Single Slater-determinant ansatz.
- Single-parameter Jastrow correlation function.

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Efficiency vs. generalization and precision

The precision of DMC (given a model Hamiltonian) is, to first approximation, limited by one thing: **The trial wave function.**

SP-basis → Det. Basis → Combine Determinants

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Lists I

unnumbered lists

- Introduction to \LaTeX
- Course 2
- Termpapers and presentations with \LaTeX
- Beamer class

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Lists I

lists with pause

- Introduction to L^AT_EX
- Course 2

Lists I

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- Introduction to \LaTeX
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Lists II

numbered lists

- ① Introduction to \LaTeX
- ② Course 2
- ③ Termpapers and presentations with \LaTeX
- ④ Beamer class

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Lists II

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- ① Introduction to L^AT_EX
- ② Course 2

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Tables

Tables

Date	Instructor	Title
WS 04/05	Sascha Frank	First steps with \LaTeX
SS 05	Sascha Frank	\LaTeX Course serial

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Tables

Tables with pause

A	B	C
1	2	3

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A B C

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blocs

blocs

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bloc text

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bloc text

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bloc text

split screen

splitting screen

- Beamer
- Beamer Class
- Beamer Class Latex

Instructor	Title
Sascha Frank	LATEX Course 1
Sascha Frank	Course serial

pictures in latex beamer class

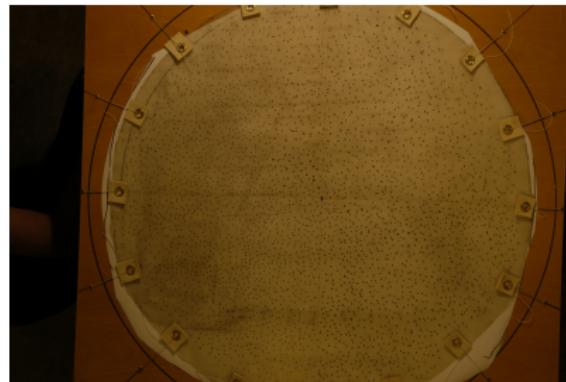


Figure: show an example picture

joining picture and lists

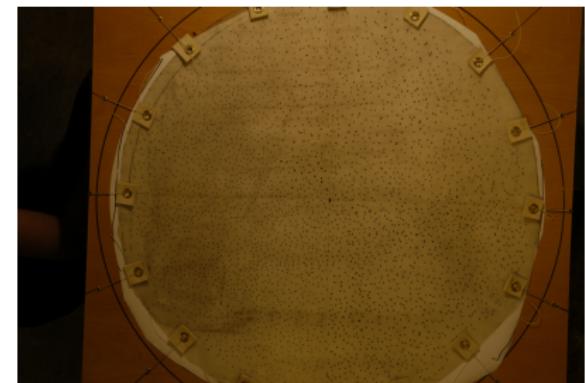
pictures and lists in beamer class

- subject 1

joining picture and lists

pictures and lists in beamer class

- subject 1
- subject 2



joining picture and lists

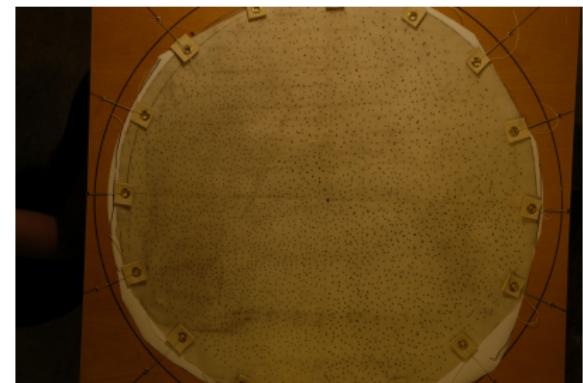
pictures and lists in beamer class

- subject 1
- subject 2

joining picture and lists

pictures and lists in beamer class

- subject 1
- subject 2
- subject 3



joining picture and lists

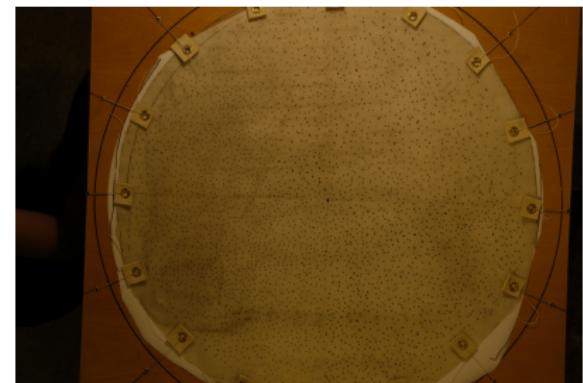
pictures and lists in beamer class

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- subject 3

joining picture and lists

pictures and lists in beamer class

- subject 1
- subject 2
- subject 3



plain, or a way to get more space

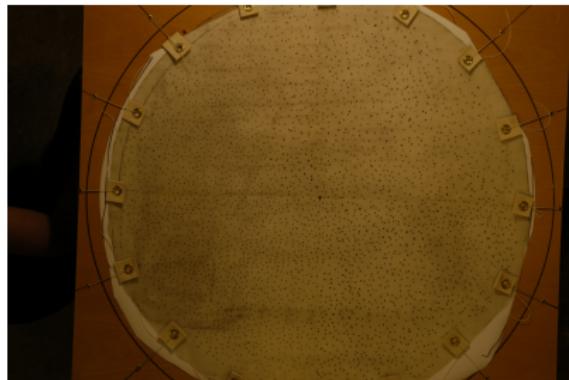


Figure: show an example picture