

# iTHEPHY in action

## moodling particle physics exercises

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January 23, 2019

- ① Student's view
- ② Teacher's view
- ③ The moodle platform
- ④ Outlook

Course: iTHEPHY Exercises, Topic: Experimental Particle Physics - Mozilla Firefox

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Course: iTHEPHY Exerc... x +

https://moodle.ithephy.eu/course/view.php?id=7&sectionid=58

Marcel Golz

# iTHEPHY Exercises

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## Experimental Particle Physics

### EPP01: Bound top-quark pairs

- EPP01: Bound top-quark pairs
- PDF version of EPP01: Bound top-quark pairs
- Submit your solution of EPP01: Bound top-quark pairs
- Solution to EPP01: Bound top-quark pairs
- Hidden from students
- Give feedback to EPP01: Bound top-quark pairs

### Search forums

Advanced search

### Latest announcements

Add a new topic...

(No announcements have been posted yet.)

### Upcoming events

## Student's view

- ▶ What can I do with the iTHEPHY moodle?

## Student's view

- ▶ What can I do with the iTHEPHY moodle?
  - ▶ Find exercises for self-study.
  - ▶ Find master courses
  - ▶ Get information on suitable literature
  - ▶ Get short explanations in glossary

## Student's view

- ▶ What can I do with the iTHEPHY moodle?
- ▶ How do I get an account?

## Student's view

- ▶ What can I do with the iTHEPHY moodle?
- ▶ How do I get an account?
  - ▶ Just go to the platform.

## Student's view

- ▶ What can I do with the iTHEPHY moodle?
- ▶ How do I get an account?
- ▶ Are there solutions to the exercises?



## Student's view

- ▶ What can I do with the iTHEPHY moodle?
- ▶ How do I get an account?
- ▶ Are there solutions to the exercises?
  - ▶ Yes, but not available for direct download.

## Student's view

- ▶ What can I do with the iTHEPHY moodle?
- ▶ How do I get an account?
- ▶ Are there solutions to the exercises?
- ▶ Can I get graded for the exercises? Credits for solving the problems?

## Student's view

- ▶ What can I do with the iTHEPHY moodle?
- ▶ How do I get an account?
- ▶ Are there solutions to the exercises?
- ▶ Can I get graded for the exercises? Credits for solving the problems?
  - ▶ Only in terms of courses, not by solving all problems of the database.

## Student's view

- ▶ What can I do with the iTHEPHY moodle?
- ▶ How do I get an account?
- ▶ Are there solutions to the exercises?
- ▶ Can I get graded for the exercises? Credits for solving the problems?
- ▶ How do I use the Literature Glossary?

## Student's view

- ▶ What can I do with the iTHEPHY moodle?
- ▶ How do I get an account?
- ▶ Are there solutions to the exercises?
- ▶ Can I get graded for the exercises? Credits for solving the problems?
- ▶ How do I use the Literature Glossary?
  - ▶ Click on Phrases that are used in exercises.
  - ▶ Click on Literature.
  - ▶ Search for phrases In glossary.

## Teacher's view

- ▶ Can I use the moodle platform as a teacher?

## Teacher's view

- ▶ Can I use the moodle platform as a teacher?
  - ▶ **YES!**

## Teacher's view

- ▶ Can I use the moodle platform as a teacher?
- ▶ How do I get the correct access?



## Teacher's view

- ▶ Can I use the moodle platform as a teacher?
- ▶ How do I get the correct access?
  - ▶ Just go to the platform.

## Teacher's view

- ▶ Can I use the moodle platform as a teacher?
- ▶ How to I get the correct access?
- ▶ How do I use the moodle platform for my courses?

## Teacher's view

- ▶ Can I use the moodle platform as a teacher?
- ▶ How to I get the correct access?
- ▶ How do I use the moodle platform for my courses?
  - ▶ Tell Students to train for exam by using the database
  - ▶ Get inspiration from exercises in database
  - ▶ Directly implement exercises in your courses by using the moodle platform

## The moodle platform

<https://moodle.ithephy.eu/>

▶ Skip moodle pictures

moodle.ithephy.eu: Log in to the site - Mozilla Firefox

moodle.ithephy.eu: Log x +

https://moodle.ithephy.eu/login/index.php

iTHEPHY Innovative Team - Teaching for Physics

moodle.ithephy.eu

Tertin

## Log in

Username

Password

Remember username

Log in

[Forgotten your username or password?](#)

Cookies must be enabled in your browser

Log in using your account on:

iTHEPHY IAM



Welcome to **iTHEPHY**

Sign in

[Forgot your password?](#)

[Register a new account](#)

## Register at iTHEPHY

This is the iTHEPHY registration page.

If you want to register using an external identity provider, like Google or your institution identity provider, head back to the [login page](#) and click the "Sign in with" button of your preferred identity provider.

To proceed with the registration please fill in your personal information below.

**Given name**

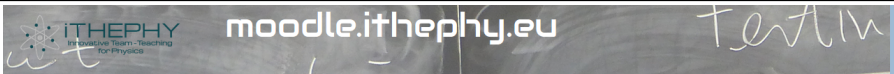
**Family name**

**Email**

**Username**

**Notes**

Providing a clear explanation on the motivation behind this request will likely speed up the approval process



ANNOUNCEMENTS

Course overview

Timeline Courses

In progress Future Past



No in progress courses

Private files

No files available

Manage private files...

Online users

(last 5 minutes: 2)

Marcel Golz

Louis VASLIN

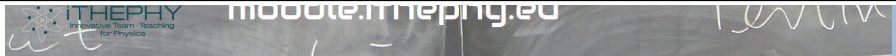
Latest badges

You have no badges to display

Calendar

November 2018  
Mon Tue Wed Thu Fri Sat Sun





ANNOUNCEMENTS

No news items to display

Tandem Projects

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iTHEPHY Exercises

Course >

International School O...

Course >

BCD School Testroom

Course >

test

Course >

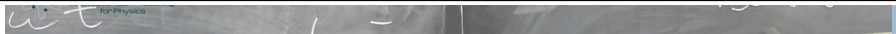
Courses

- Tandem Projects
- iTHEPHY Exercises
- International School On High Energy Physics
- BCD School Testroom
- test
- All courses ...

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Administration



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Experimental Particle Physics

Cosmology

Experimental Methods

Statistical Methods

Accelerator Physics

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announcements

Add a new topic...

(No announcements have been posted yet.)

Upcoming  
events

There are no upcoming events

Go to calendar...

Recent  
activity

## Exercise Database

Entries per page 
 Search 
 Sort by 

 Advanced search



**ID:** TPP01

**Subject:** Theoretical Particle Physics (TPP)

**Topic:** Chiral Lagrangian

**Title:** The Pion mass

**Type:** Calculation

**Level:** Intermediate

**Keywords:** Symmetry, Lagrangian

**Go to exercise:** [click here](#)



**ID:** TPP02

**Subject:** Theoretical Particle Physics (TPP)

**Topic:** Axion dark matter

**Title:** The axion field at late times

**Type:** Calculation

**Level:** Intermediate

**Keywords:** Cosmology, Axion field equation

**Go to exercise:** [click here](#)



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## Exercise Database

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Entries per page 10 Search  Sort by    Advanced search

Save settings

Found records: 1/6 (Reset filters)

**ID:** TPP01  
**Subject:** Theoretical Particle Physics (TPP)  
**Topic:** Chiral Lagrangian  
**Title:** The Pion mass  
**Type:** Calculation  
**Level:** Intermediate  
**Keywords:** Symmetry, Lagrangian  
**Go to exercise:** [click here](#)



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Theoretical Particle Physics

## Exercise Database

Entries per page 
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**ID:** TPP01

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**Title:** The axion field at late times

**Type:** Calculation

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**Keywords:** Cosmology, Axion field equation

**Go to exercise:** [click here](#)



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⚙ Administration

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## Literature Glossary

Printer-friendly version

Search  Search full text

Add a new entry

Browse the glossary using this index

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### F

#### Fierz identities

The Fierz identities are used in particle physics to analyze four-fermion operators such as current-current operators. These reordering identities are used to write a product of two Dirac bilinears as a linear combination of other products of bilinears with the four constituent Dirac spinors in a different order.

Fierz identities simply follow from the notion of a matrix vector basis and its properties of orthogonality and completeness.

Literature hep-ph/0412245

0412245.pdf

Keyword(s):

Fierz identities, completeness relation, matrix vector spaces, chiral, dual basis



Performing a TLS handshake to arxiv.org...

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## Outlook

- ▶ Moodle platform will be used for various courses.

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- ▶ Moodle platform will be used for various courses.
- ▶ Exercises and Literature Glossary can be used for self-study.



## Outlook

- ▶ Moodle platform will be used for various courses.
- ▶ Exercises and Literature Glossary can be used for self-study.
- ▶ Internationalization of physics master courses will be achieved (along with the other projects of iTHEPHY).

## Contact

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- ▶ `https://moodle.ithephy.eu/`