

# How to KCDC?

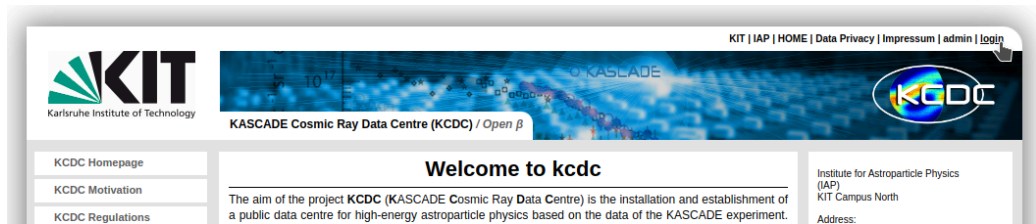
for ICD participants

**KASCADE Cosmic Ray Data Centre (KCDC)** is a web platform, which provides you open access to data of several experiments of astroparticle physics alongside data analysis tutorials. This instruction will lead you through using KCDC in a few simple steps:

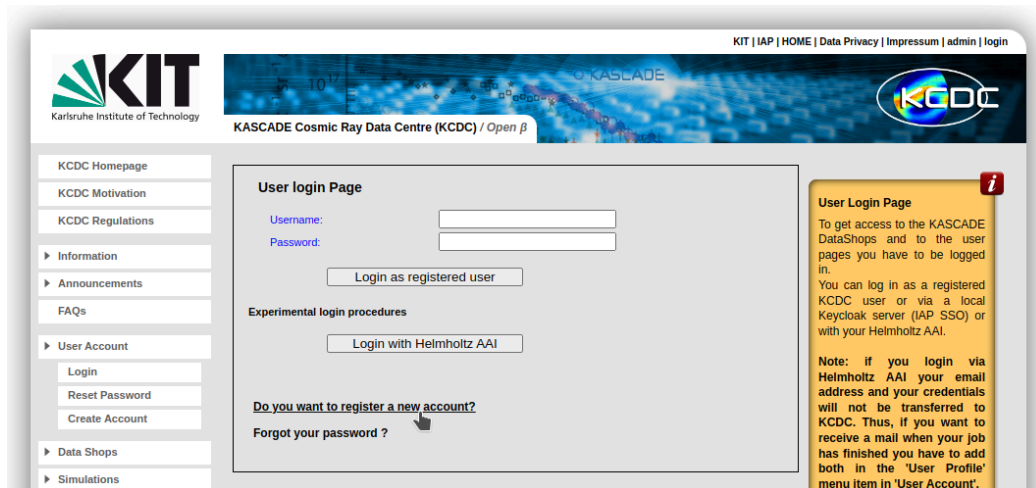
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# 1. Registration at KCDC

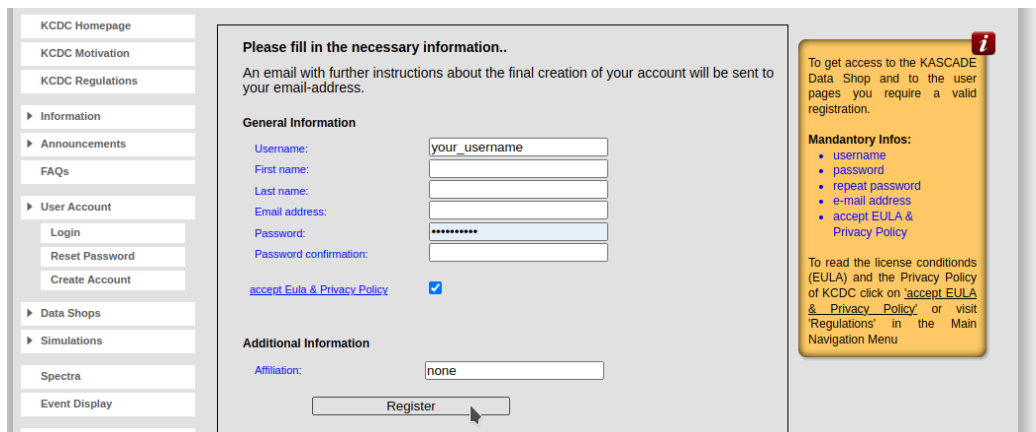
- Click the “Login” button at the start page



- Click “Do you want to register a new account?”



- Fill in your data and finish the registration process by clicking “Register”:



- Log in with your new account

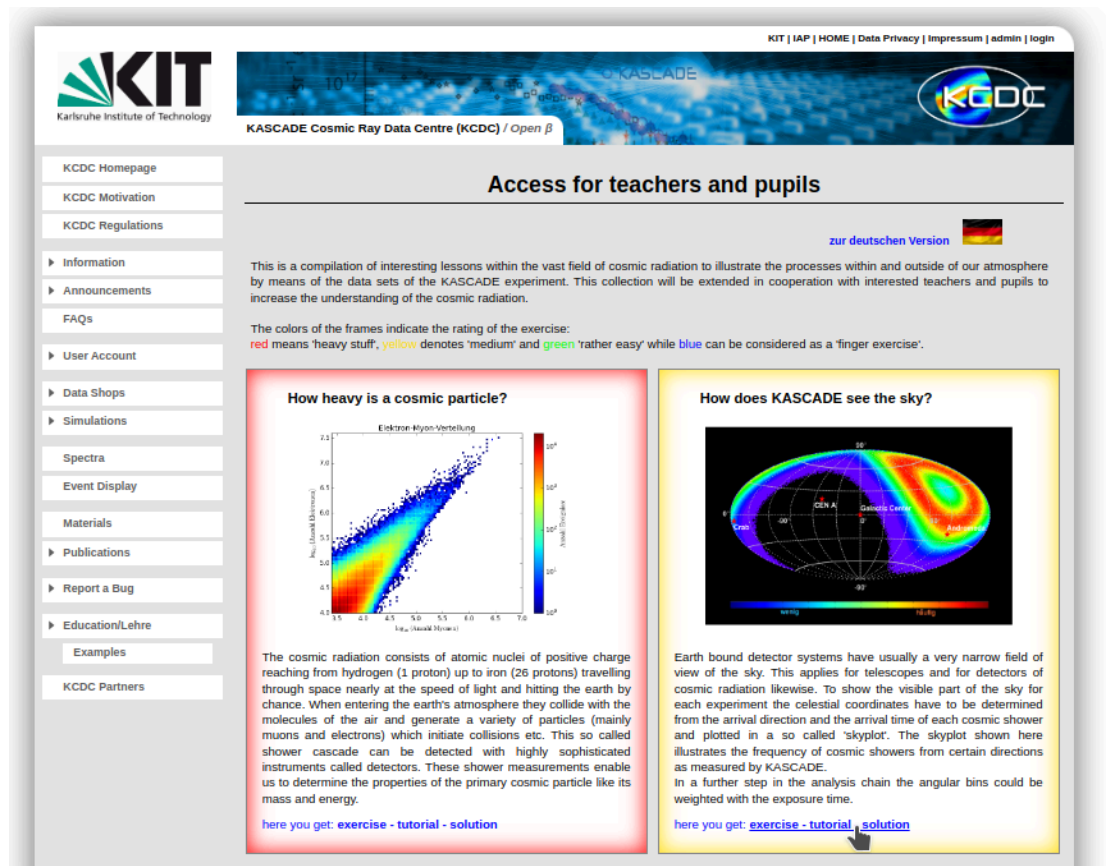
## 2. Access to data analysis tutorials

Some of KCDC tutorials you can download and work with them offline on your own computer. In order to do this:

- Proceed to [Education/Lehre -> Examples](#) on the panel on the left:



- Press “exercise-tutorial-solution” in order to download the tutorial of your choice



The screenshot shows the KCDC website interface. At the top, there are logos for KIT (Karlsruhe Institute of Technology) and KASCADE Cosmic Ray Data Centre (KCDC). The main navigation menu on the left includes 'Publications', 'Report a Bug', 'Education/Lehre', and 'KCDC Partners'. The 'Education/Lehre' section is expanded, showing 'Examples' as the selected option. The main content area is titled 'Access for teachers and pupils' and features a link to 'zur deutschen Version'. Below this, there is a paragraph of text explaining the purpose of the lessons and a color-coded key for exercise difficulty: red for 'heavy stuff', yellow for 'medium', green for 'rather easy', and blue for 'finger exercise'. Two tutorial cards are displayed side-by-side. The left card, titled 'How heavy is a cosmic particle?', features a scatter plot of  $\ln_{10}(A_{\text{had}}(\text{GeV}^{-1}))$  vs  $\ln_{10}(A_{\text{had}}(\text{GeV}^{-1}))$  with a color scale for  $A_{\text{had}}(\text{GeV}^{-1})$  ranging from  $10^0$  to  $10^7$ . The right card, titled 'How does KASCADE see the sky?', shows a sky plot with a color scale for frequency from 'low' to 'high'. Both cards include a link to 'exercise - tutorial - solution'.

- Unzip the archive on your computer and follow the instruction in the folder

### 3. Access more data and materials

In the tutorials, one works with rather small amounts of data, but using more data can make your analysis results more solid. If you want to try some more advanced analysis on your own, please check:

- Preselected datasets: <https://kcdc.iap.kit.edu/datashop/fulldata/>
- Simulation datasets: <https://kcdc.iap.kit.edu/simul/simkas/>
- Code examples and documentation: <https://kcdc.iap.kit.edu/materials/>

As well, don't hesitate to

### 4. Get in contact with us

We will be happy to answer your questions or to hear some feedback from you. In order to get in contact, send us an email to [iap-kcdc@lists.kit.edu](mailto:iap-kcdc@lists.kit.edu) with a reference “KCDC tutorial ICD” in the title.

**Happy International Cosmic Day!**

