



# Zfit tutorial

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# What is zfit?

- Model fitting library for python based on TensorFlow
- Built as a python-based alternative to RooFit
- You will need to install zfit and TensorFlow

```
$ pip install zfit
```

```
$ pip install tensorflow
```

# How to use zfit

1. Import tensorflow and zfit
2. Create an “observable space” (the range you want to fit over for the variable you are fitting)
3. Define your fit parameters
4. Build your PDF(s)
5. Create the dataset object that will be fitted
6. Do the fit

# Hands On

- We'll be fitting to the reconstructed missing mass for  $B \rightarrow D^* \ell \nu$
- Root files and the example notebook can be found on kekcc at `/home/belle2/qcampagn/B2Workshop24/fitting_handson/`
- The example notebook can also be found at [github.com/qdcampagna/B2Workshop24\\_fitting\\_tutorial](https://github.com/qdcampagna/B2Workshop24_fitting_tutorial), but the root files were too large
  - You can still use this as a template for your own zfit projects
- For more information, see the [zfit documentation](#)