

# Using sphinx with Jupyter notebooks for training material

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## Jupyter notebooks

- Allows for interactive training sessions with more convenience than the REPL
- By default stores notebooks in `.json` format
- `jupyter` extension allows to save notebooks as plain python files

## Sphinx

- Used for API documentation of python packages (similar to doxygen)
- Can read and include source files
- Default format: `.rst`, but can also use `.md` files
- Can also include Jupyter notebooks using the `nbsphinx` extension. Output does not need to be tracked, but is generated when building website.
- Example for training lessons:  
`https://lhcb.github.io/starterkit-lessons/index.html`

# Using Jupyter notebooks, nbsphinx, jupyter text together

## Advantages

- Easy interactive training sessions
- Nice webpage
- When building webpage all code is executed  $\implies$  always realize directly if anything is broken ( $\longrightarrow$  unittests)
- Notebooks tracked as plain python  $\implies$  can be easily searched and skimmed from the command line without need to start Jupyter server
- Easily integrates with API documentation of other python packages

## Alternative: Jupyter book