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# first Documentation

*Release*

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**The header:**

```
from ezsub import EZSUB
import numpy as np
```

**Submit a single job:**

```
# define macro parameters
so_easy = EZSUB(
    projectName="fheating",
    jobName="MC"
)
# submit job with parameters T=2.26 and J=1.0
so_easy.submit(
    command = '~/conda/envs/py35/bin/python main.py', # main.py is the ↪
    ↪python script you want to submit
    fixedParameters = [('T', 2.26), ('J', 1.0)]
)
```

**Submit a multiple jobs:**

```
# submit job with parameters T=[1.0,2.0,3.0,4.0] and J=1.0
so_easy.submit(
    command = '~/conda/envs/py35/bin/python main.py',
    fixedParameters = [('J', 1.0)],
    variableParameters = [('T', np.arange(1.0, 4.01, 1.0))]
)
```

**Submit multiple jobs, and have clear job name identifiers:**

```
# define macro parameters and job identifier syntax
so_easy = EZSUB(
    projectName="fheating",
    jobName="MC",
    jobNameExtra=[("T", "%.2f"), ("J", "%.1f")]
    # jobNameExtra specifies the format of the param. to track in the job ↪
    ↪name
)
# submit job with parameters T=[1.0,2.0,3.0,4.0] and J=1.0
so_easy.submit(
    command = '~/conda/envs/py35/bin/python main.py',
    fixedParameters = [('T', 2.26), ('J', 1.0)]
)
```



## DOCUMENTATION

**class** ezsub.**EZSUB** (*projectName, jobName, jobNameExtra=None, wallTime=(2, 0, 0), email=None, jobNumber=True*)

Python 3 script for easily submitting jobs on the SCC !

**submit** (*command, fixedParameters=None, variableParameters=None*)

**fixedParameters: list of tuples = (string, float or int)** specifies the fixed parameters passed to the command line. For instance, if parameter T takes values 2.26 and J takes values 1.0, this is specified as:

[("T",2.26),("J",1.0)]

**This will be translated to:** "T=2.26 J=1.0" on the command line.

**variableParameters: list of tuples = (string, iterable)** specifies the variable parameters passed to the command line. For instance, if parameter T takes values [1.0, 2.0, 2.26, 3.0] and J takes values [1.0, 1.1, 1.2], this is specified as:

[("T",[1.0, 2.0, 2.26, 3.0]),("J",np.arange(1.0, 1.21, 0.1))]

**This will trigger a loop over the parameters, giving the command line the following series of parameters:**

"T=1.0 J=1.0" "T=1.0 J=1.1" "T=1.0 J=1.2" "T=2.0 J=1.0" ...

**Some notes:**

- maximum precision on float parameters is 3 decimal places
- format of specified parameters is always parameter=parameter\_value, with parameter a string and parameter\_value a numeric type





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