AWI-CM3 hands-on-course:

Part 6 Source code modifications

Jan Streffing 08.09.2022

Personal changes / Scientific work

- **Start from** latest **tag**ged version
- Make a branch based off the tag
- Modify code
- Run simulations
- Move on

```
master
v3.0
v3.1
   L> v3.1+myfeature
```

ⓘ Your **changes** are **not fed back** to the master branch
Changes are **not part of any tagged version**
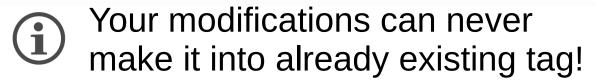Changes **don't interfer with colleagues** work

New permanent feature

- **Start from latest master**
- Make a branch based off the master
- Develop feature
- Test
- Make merge request
- Feature is **merged back to master**

Once we have enough / big enough changes we will tune & run evaluation experiments (~1000 model years in total).

When we are happy with the results a **new tagged version** e.g. v3.2 will be **made from master**.

```
master
   L> master+myfeature
   L> master+someones_elses_feature1
   L> master+someones_elses_feature2
v3.0
v3.1
```

```
master
   L> prep_release_v3.2
        L> v3.2
v3.0
v3.1
```

(i) Your modifications can never make it into already existing tag!

New permanent feature

If you base your scientific work on the master branch, expect **other merged features** to interfer.

The master branch ≠ best branch!

Extensive tests for major releases can not be done too often.
→ Release schedule ~6 Months

```
master
  L> master+myfeature
  L> master+someones_elses_feature1
  L> master+someones_elses_feature2
v3.0
v3.1
```

```
master
  L> prep_release_v3.2
       L> v3.2
v3.0
v3.1
```