# ls1 / mardyn coding conventions

## Formatting

- Indent with a tab
- For pointer and reference variable declarations put the space in front of the variable name.
- For if, for, classes and methods put the curly brackets on the same line as the statement

## Header Formatting

- Access modifiers are not indented
- Double inclusion protection defines are all upper case letters and are composed of the classname and a H suffix separated by underscores

## Documentation

- Each class, method and member variable must have a Doxygen/DoxyS compatible comment in the header
- Each class must have at least one author tag
- Comments should be concise but thorough, describing all input/output parameters and the implemented functionality
- Code in cpp-files should be commented if the functionality is not clear from the method comment (reference papers if appropriate)

## Class and Variable Names

- Abbreviations in names should be avoided
- Put classes in files, which have the same name as the class
- For class, variable, function names separate multiple words by upper-casing the words preceded by other words
- Class names start with an upper-case letter
- Function names start with a lower-case letter
- Variable names start with a lower-case letter
- Member variables of a class start with "_" followed by a lower-case letter

## Miscellanous

- No using-directives are allowed in header files.