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| **DIPARTIMENTO DI INFORMATICA** | |
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| *Formal Methods in Computer Science* | |
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**Introduction**

This is the documentation of a simple interpreter for the IMP language written using Haskell programming language. The interpreter has been implemented by Calvano Miriana for the final exam of the course “Formal Method in Computer Science”.

An interpreter, by definition, is a computer program that directly executes instructions written in a

programming or scripting language without requiring them previously to have been compiled into a machine language program. The interpreter, indeed, usually transforms the high-level program into an intermediate language before executing it.

The types involved in this language are:

* ***Int:*** represents Integer numbers which can have negative or positive values;
* ***Bool***: represents Boolean values that can assume True or False as values;
* ***Float:*** represents Floating number that can be negative or positive and are represented with the exponential notation;
* ***Array:*** represents the Array, a data structure that contains a group of elements of the same type and in this interpreter the array contains integer values.