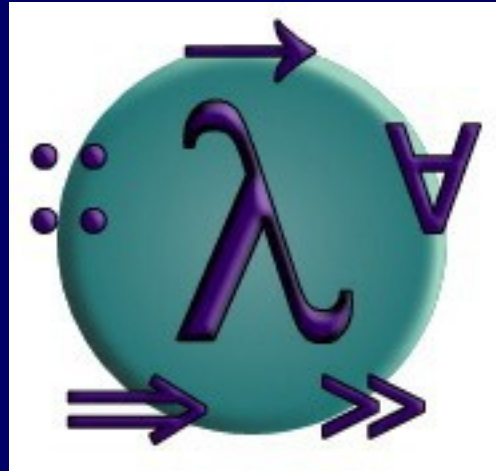


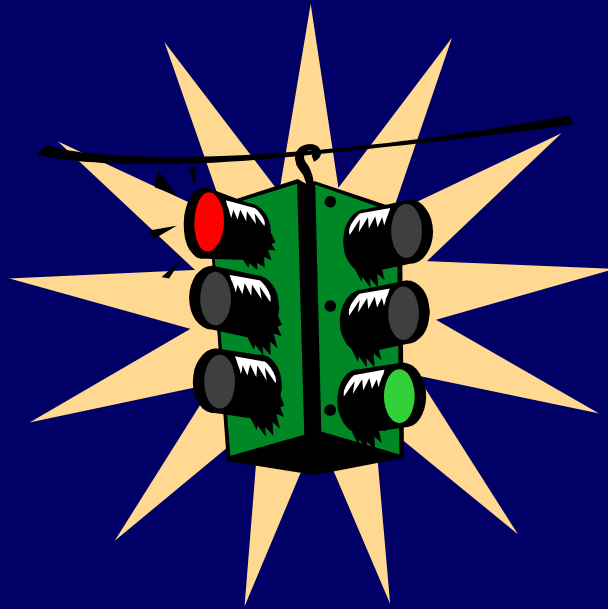
ADVANCED FUNCTIONAL PROGRAMMING



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(slides by Graham Hutton)

Prerequisites

In order to take this module you must already have completed G51FUN Functional Programming.



Lectures

- Monday, 15.00 – 16.00, LT1 (Exchange);
- Tuesday, 9.00 – 10.00, A25 (BSSouth).

Practicals

- Friday, 14.00 - 16.00, A32 (Computer Science).

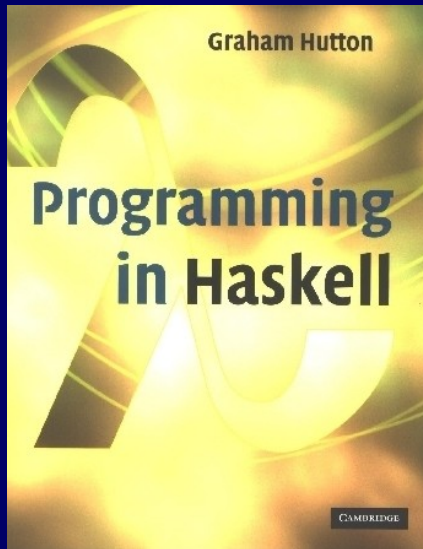
Lecture Notes

- Lectures will mostly be given at the whiteboard, and you are expected to take your own notes.
- Some extra material will also be provided.



Textbook

There is no formal textbook for the module, but the following will be useful for background reading, and some material from the later chapters is covered:



Assessment

- Coursework: Two programming assignments (10% + 15%);
- One 2-hour written examination (75%).

Exercises

In addition to the coursework, most lectures have a number of informal (non-assessed) exercises.

This Module

- Functional languages represent the leading edge of programming language design, and the primary setting in which new programming concepts are introduced and studied.
- This module builds upon G51FUN by focussing on a number of more advanced topics in the area of functional programming, including aspects of recent and current research.

The precise topics covered will vary from year to year, but will include topics such as:

- Programming with effects;
- Reasoning about programs;
- Program efficiency;
- Control flow;
- Infinite data structures;
- On-going research.

We will begin with a brief review of Haskell, and an extended example: solving Sudoku puzzles.