

## Syllabus

1. LL and LR parsing using stack machines
2. Compiling C like language: stack frames
3. Compiling functional languages

## Assessment

- ▶ 60% exam
- ▶ 20% class tests
- ▶ 20% programming exercise + report, only for Extended

## Background

- ▶ Grammars and parse trees
- ▶ Computer architecture: what is a register etc
- ▶ Functional programming is useful to know

## Compiled with clang -S -O3

```
long f(long x, long y)
{
    long a, b;
    a = x + 42;
    b = y + 23;
    return a * b;
}
```

```
f:
    addq $42, %rdi
    leaq 23(%rsi), %rax
    imulq %rdi, %rax
    ret
```