# A brief history of Fortran

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# 1. Formula Translator

Somewhere in the 1950s, John Backus

Basically the first machine-independent language

First compiler took many man-years to write

# 2. Fortran Standards

- Really old standards: Fortran 1, Fortran 4
- Unofficial standards: Watfor (University of Waterloo)
- And then Fortran 66, 77, 88
  . . . no wait, they missed the deadline: 90
- 90/95 was a big improvement!
- Recent revisions: 2003 OOP
- and then 2008, 2018

# 3. Fortran 66

No serious control structures:

```
      If ( x .gt. 0 ) goto 10
      goto 20
10    true part
      goto 30
20    false part
30    continue
```

You will receive a failing grade if I see you write this!

# 4. Other F66/F77 idiosyncrasies

- No recursion
- No dynamic memory
- Fixed form source
- 'Common blocks'. Don't ask.

# 5. Fortran 90

- Free form source
- Recursion
- Dynamic memory
- Array notation!
- Modules
- Polymorphism

# 6. Fortran 2003

- Object orientation.
- Parallelism through ‘co-arrays’

# 7. So why Fortran?

- Because there are many Fortran codes around
  . . . maybe written by your advisor
- Because it's a cool language
- Because array handling is elegant

Learning a second language is always good.