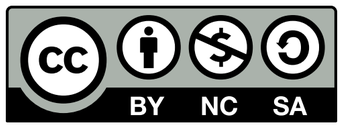
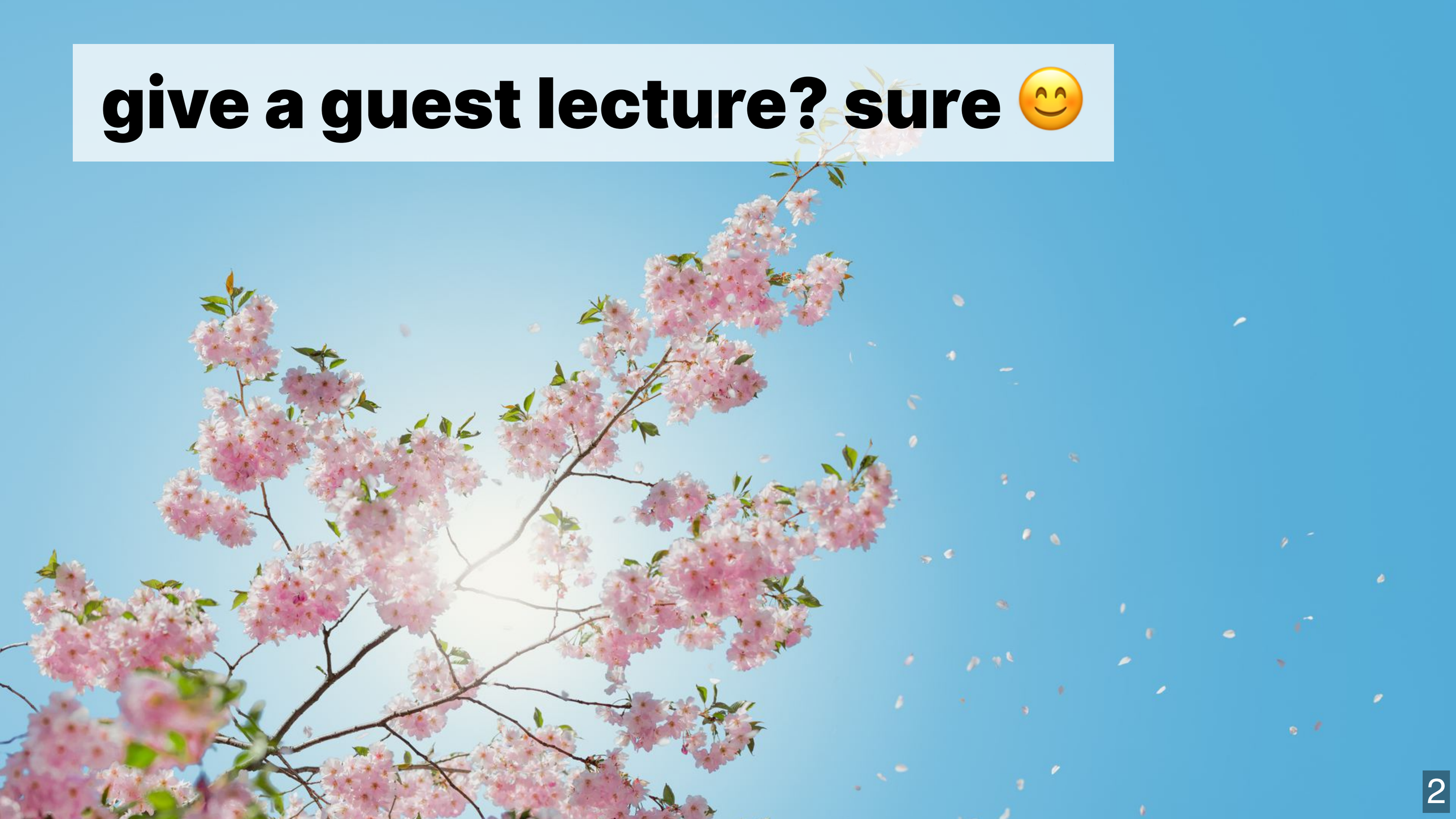
Pop-production as problem-solving

Dr. Ben Swift *11 Jan '19*



give a guest lecture? sure 😊




oh, is it January already?

extempore: a livecoding language

livecoding

outline

- what's a producer?
- modelling the domain
- crowdsourced livecoding

what *I'm* gonna do

- learn a new song (by ear!)
- figure out how to turn it into code
- find a bunch of sounds which sound (approximately) like the recording
- lay down a vocal track (maybe)
- make the whole process make sense to you guys

all in 45 minutes ⏱️

yikes!

what *you're* gonna do

- help me choose the song
- be kind when I make mistakes
- clap politely at the end (even if I flame out)

I'm old...

pop music is *produced*

what's a producer?

a **producer** is someone who makes songs happen

pop songs are characterised by:

- catchy hooks
- repetitive harmonic patterns (e.g. chord progressions)
- processed/synthetic sounds (lots of computers involved in the production)

Quincy Jones

Max Martin

programming as problem solving...

the problem:

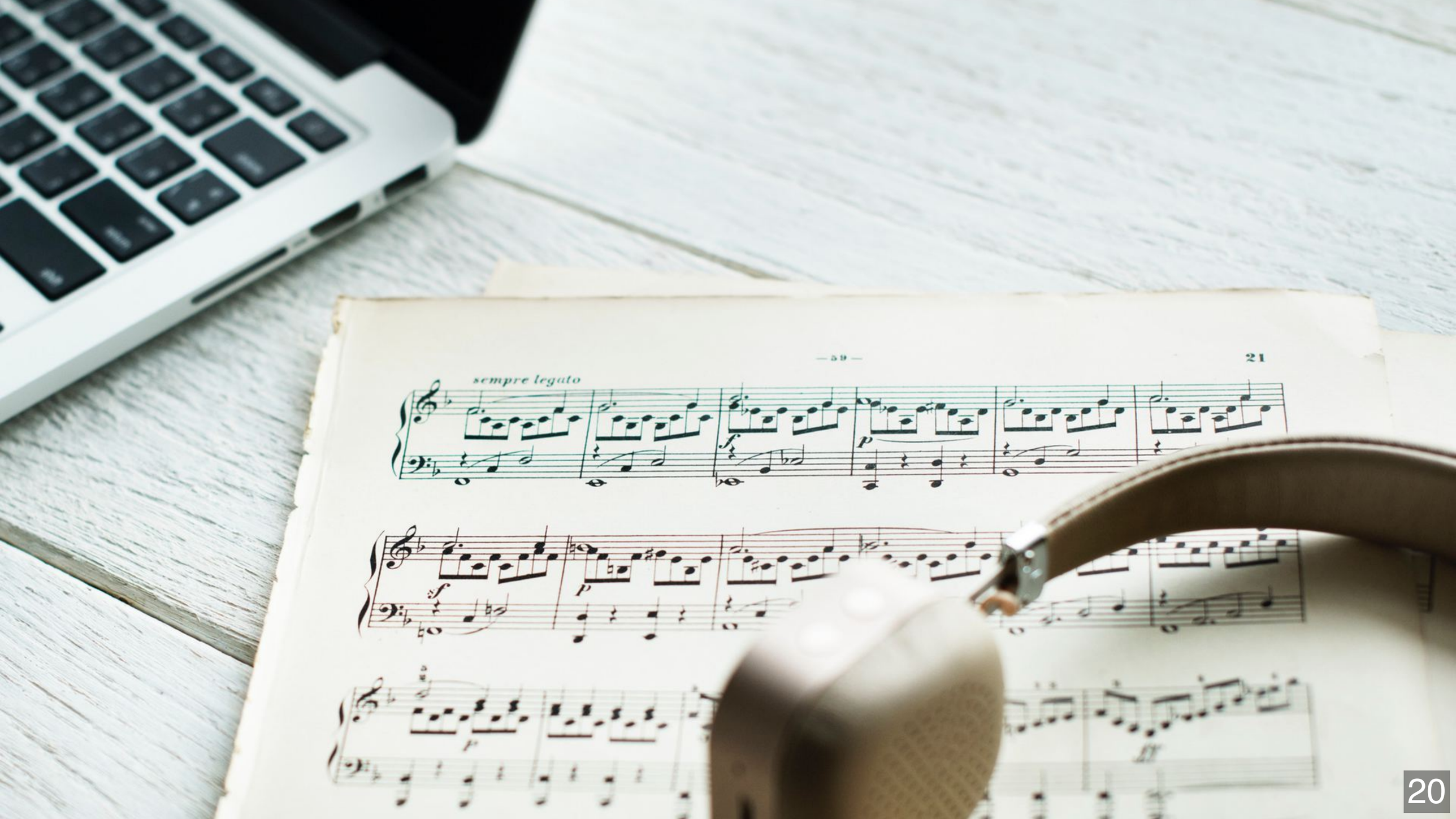
write a no. 1 hit

modelling the domain

music *(n.)*

a series of pitched “events” over time

pedantry alert!


— 59 —
21
sempre legato

dimensions of the domain

- time
- pitch
- loudness

parameterisation

- **time** (in beats), e.g. 1, 2, 3, 4, 5, 6, 7, 8
- **pitch** (in MIDI note numbers), e.g. middle C as 60, C# as 61, etc.
- **loudness** (0 is silent, 127 is super loud)

extempore: a livecoding *language*

extempore is a programming language designed for musical livecoding (written **Andrew Sorensen** and **me**)

don’t worry about the syntax, I’ll explain enough for you to follow along

let's go!

what did we learn?

pop music isn’t black magic, it’s a domain with lots of structure/patterns

computers/code are *really useful* for modelling/exploring this stuff

this is *not* AI, either

https://benswift.me