1 Review EX2

• Why do some examples sound like a spinning fan?
• Because a resonating pipe, by contrast to a fan, does not start to resonate at 0Hz or go back to 0Hz!
• Some good-sounding examples

2 Preview FP1 presentations

3 Mini feedback

4 Nonlinear synthesis

• Waveshaping
• Chebyshev Polynomials

5 Wavetable synthesis

• Table objects in Pd
  – Why 4-point interpolation (smoother playback at lower speeds)
  – [tabosc4~] vs. [phasor~] + [tabread4~]
• Equivalence of waveshaping and wavetable synthesis
  – Waveshaping: Periodic waveform (perhaps a sine) passed through nonlinear function
  – Wavetable synthesis: Phasor (fixed) indexes (potentially dynamically changing) periodic function
• Static sounds only → Change table (contents) on the fly
• But how to prevent clicks? → Write behind phasor index or crossfade between different tables
• Vector synthesis (demo with Pd extended)
• Wavescanning