Finding solos in music

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What is a ‘solo’?

- a *single* note sounding at a time
Why do this?

solo finder + instrument identifier = instrument sample library
What characterizes a solo?
What characterizes a solo?
What characterizes a solo?
The Approach

- Estimate pitch
- Filter out pitch (and partials)
- See how much residual energy is left
Unfiltered vs. Filtered

spectrogram of original wav

spectrogram of filtered wav
Initial test run

Setup:
- 20 1-minute samples hand labeled
- 28% solo, 72% non-solo

Results:
- **23% correct** identification of solo frames
- **90% correct** identification of non-solo frames
The culprit?
Next step... Markov!