

Finding solos in music

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What is a 'solo'?

- a *single* note sounding at a time

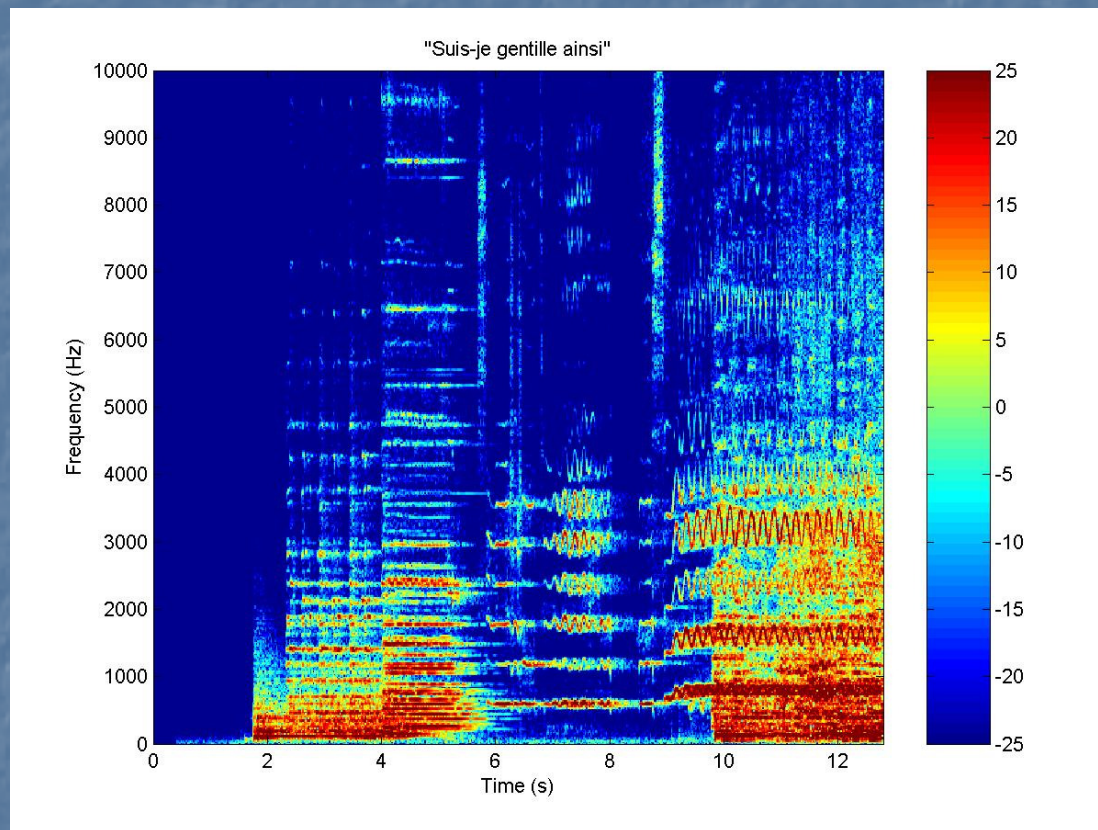
Why do this?

solo finder + instrument identifier

=

instrument sample library

What characterizes a solo?

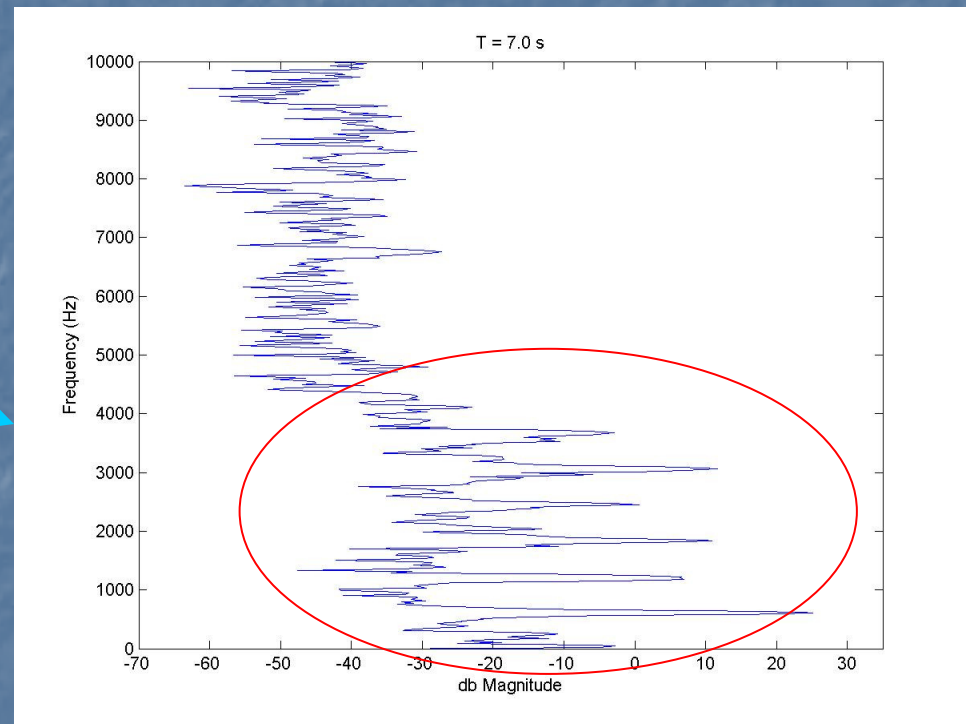
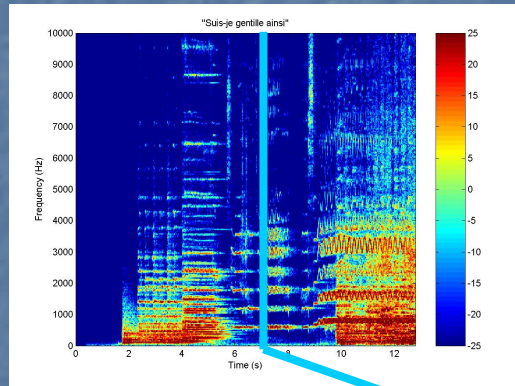


non-solo

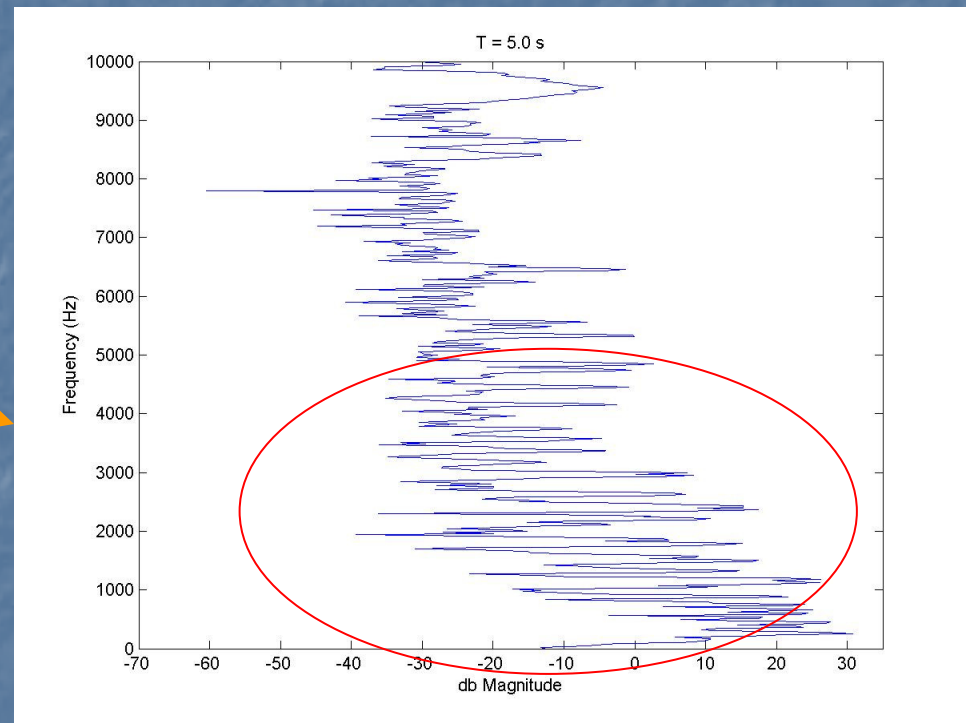
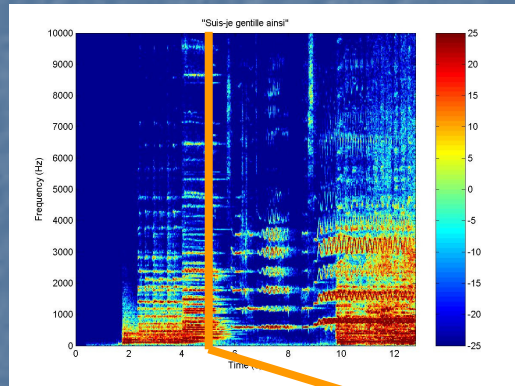
solo

non-solo

What characterizes a solo?



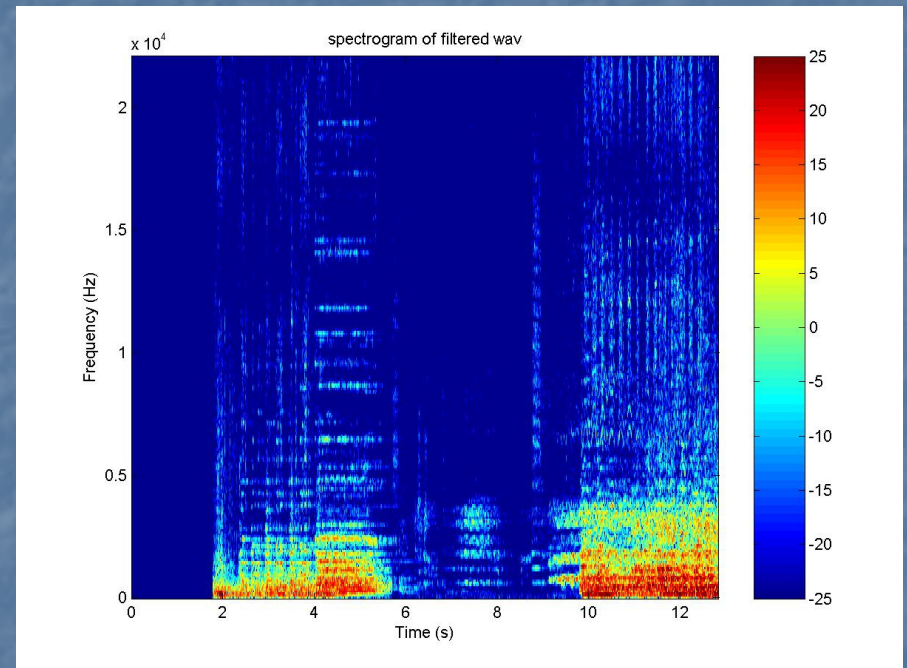
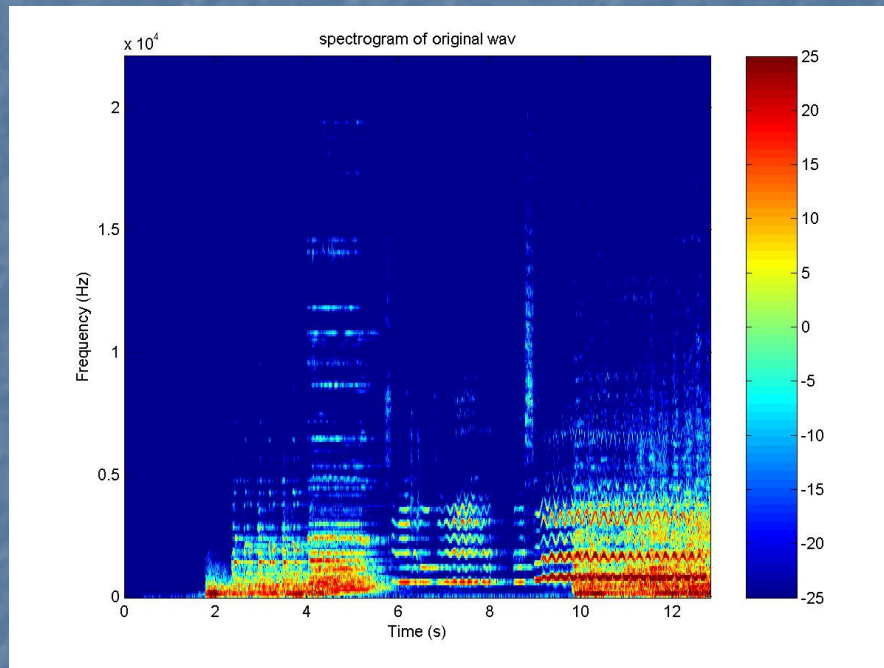
What characterizes a solo?



The Approach

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

Unfiltered vs. Filtered



Initial test run

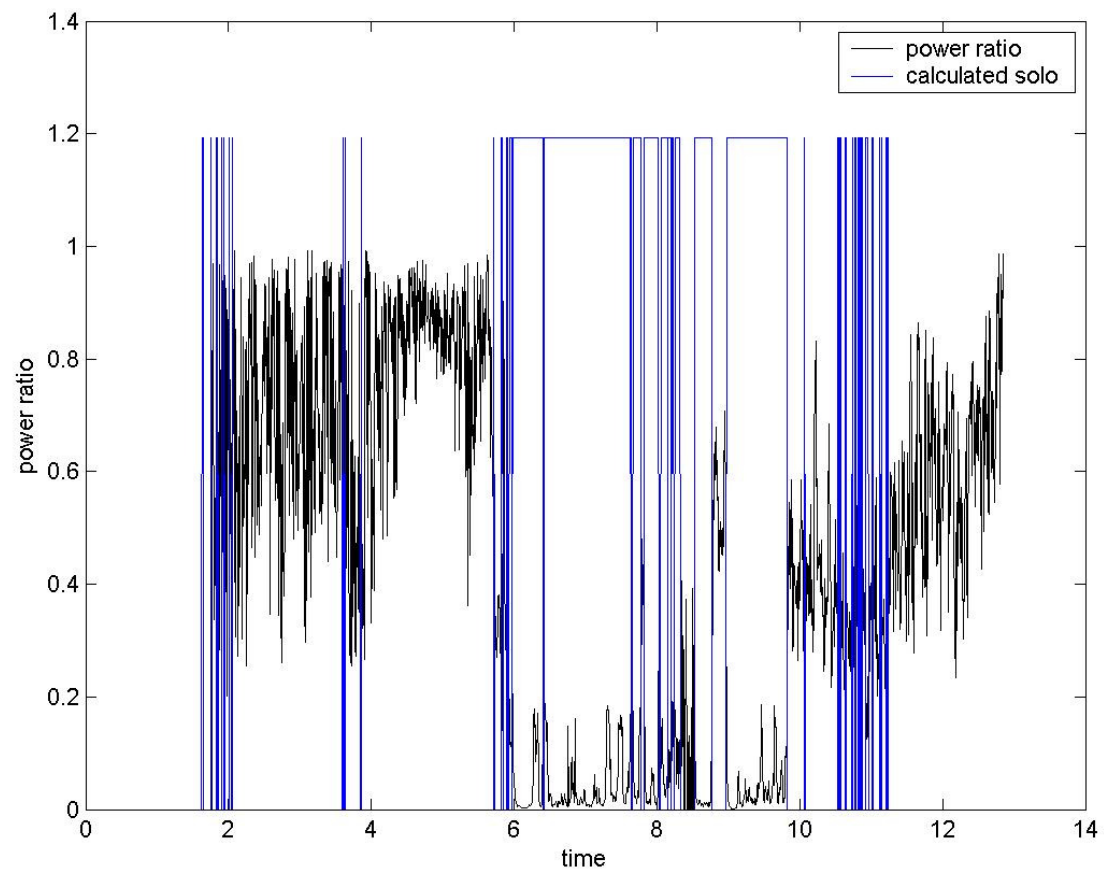
Setup:

- 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!