
pyrubberband Documentation

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A python wrapper for [rubberband](#).

For now, this just provides lightweight wrappers for pitch-shifting and time-stretching.

All processing is done via the command-line through files on disk. In the future, this could be improved by directly wrapping the C library instead.

CHAPTER 1

Example usage

```
>>> import soundfile as sf
>>> import pyrubberband as pyrb
>>> y, sr = sf.read("myfile.wav")
>>> # Play back at double speed
>>> y_stretch = pyrb.time_stretch(y, sr, 2.0)
>>> # Play back two semi-tones higher
>>> y_shift = pyrb.pitch_shift(y, sr, 2)
```


2.1 Functions

Command-line wrapper for rubberband

<code>time_stretch(y, sr, rate[, rbargs])</code>	Apply a time stretch of <i>rate</i> to an audio time series.
<code>pitch_shift(y, sr, n_steps[, rbargs])</code>	Apply a pitch shift to an audio time series.

2.1.1 pyrubberband.pyrb.time_stretch

`pyrubberband.pyrb.time_stretch(y, sr, rate, rbargs=None)`

Apply a time stretch of *rate* to an audio time series.

This uses the *tempo* form for rubberband, so the higher the rate, the faster the playback.

Parameters

y [np.ndarray [shape=(n,) or (n, c)]] Audio time series, either single or multichannel

sr [int > 0] Sampling rate of y

rate [float > 0] Desired playback rate.

rbargs Additional keyword parameters for rubberband

See *rubberband -h* for details.

Returns

y_stretch [np.ndarray] Time-stretched audio

Raises

ValueError if *rate* <= 0

2.1.2 pyrubberband.pyrb.pitch_shift

`pyrubberband.pyrb.pitch_shift(y, sr, n_steps, rbargs=None)`

Apply a pitch shift to an audio time series.

Parameters

y [np.ndarray [shape=(n,) or (n, c)]] Audio time series, either single or multichannel

sr [int > 0] Sampling rate of y

n_steps [float] Shift by *n_steps* semitones.

rbargs Additional keyword parameters for rubberband

See *rubberband -h* for details.

Returns

y_shift [np.ndarray] Pitch-shifted audio

CHAPTER 3

Contribute

- [Issue Tracker](#)
- [Source Code](#)

4.1 Changes

4.1.1 v0.2.0

- Removed dependency on librosa in favor of pysoundfile ([PR #4](#)).
- Stereo/mono interface now matches pysoundfile instead of librosa: the first axis now corresponds to time rather than channel number.

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