

A. Phrases

| | pitch | pitch_centered | pitch_normalized | pitch_finalized | cosine | interval | smooth_derivative |
|------|--------|----------------|------------------|-----------------|--------|----------|-------------------|
| all | 1 | 1 | 0.027 | 1 | 0.8 | 1 | 0.8 |
| 4.0 | -0.062 | 0 | 0 | 0 | 0 | 1.7e-5 | 1 |
| 5.0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6.0 | 0.8 | 0.048 | 0 | 4.2e-4 | 0.003 | 1 | 0.4 |
| 7.0 | 1 | 1 | 0 | 0.5 | 0.9 | 1 | 7.6e-5 |
| 8.0 | 1 | 1 | 5.5e-4 | 0.4 | 1 | 1 | 1 |
| 9.0 | 0.5 | 1 | 0.9 | 0.8 | 1 | 1 | 0.5 |
| 10.0 | 1 | 1 | 0.010 | 1 | 1 | 1 | 0.9 |
| 12.0 | 1 | 1 | 0.002 | 0.9 | 1 | 1 | 1 |
| 14.0 | 0.009 | 1 | 0.7 | 1 | 0.4 | 1 | 1 |
| 16.0 | 3.7e-4 | 1 | 0.039 | 0.2 | 0.7 | 1 | 0.9 |
| 18.0 | 0 | 1 | 0 | 0.073 | 1 | 1 | 0 |
| 20.0 | 2.3e-5 | 0.7 | 0 | 0.9 | 0 | 1 | 1 |

B. Random segments

| | pitch | pitch_centered | pitch_normalized | pitch_finalized | cosine | interval | smooth_derivative |
|-----|-------|----------------|------------------|-----------------|--------|----------|-------------------|
| 1 | -1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | -0.7 | 0.020 | 0 | 0.8 | 0.9 | 0.015 | 1 |
| 0.6 | -0.6 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | -1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | -1 | 1 | 0 | 0.8 | 1 | 1 | 1 |
| 1 | -1 | 1 | 0.003 | 1 | 0.6 | 1 | 1 |
| 1 | -1 | 1 | 0.9 | 1 | 1 | 1 | 0 |
| 1 | -1 | 1 | 0 | 0.9 | 1 | 1 | 1 |
| 1 | -1 | 1 | 0.031 | 1 | 1 | 1 | 0.9 |
| 1 | -1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0.9 | -1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | -0.6 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | -1 | 1 | 1 | 1 | 0.7 | 1 | 0.9 |

C. Synthetic contours

| | pitch | pitch_centered | pitch_normalized | pitch_finalized | cosine | interval | smooth_derivative |
|---|-------|----------------|------------------|-----------------|--------|----------|-------------------|
| 1 | - | 1 | 1 | 1 | 1 | 1 | 0.8 |
| 1 | - | 0.5 | 0.083 | 0.6 | 1 | 0.029 | 0.8 |
| 1 | - | 0.090 | 1 | 0 | 1 | 1 | 1 |
| 1 | - | 1 | 0.5 | 0 | 1 | 0.1 | 1 |
| 1 | - | 1 | 1 | 8.6e-6 | 1 | 1 | 1 |
| 1 | - | 1 | 0.9 | 1 | 0.8 | 1 | 1 |
| 1 | - | 2.3e-6 | 0.8 | 4.0e-4 | 1 | 1 | 1 |
| 1 | - | 1 | 1 | 0.1 | 1 | 1 | 1 |
| 1 | - | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | - | 1 | 1 | 0.7 | 1 | 1 | 1 |
| 1 | - | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | - | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | - | 1 | 0.9 | 0.6 | 0.8 | 1 | 0.9 |

D. Clustered contours

