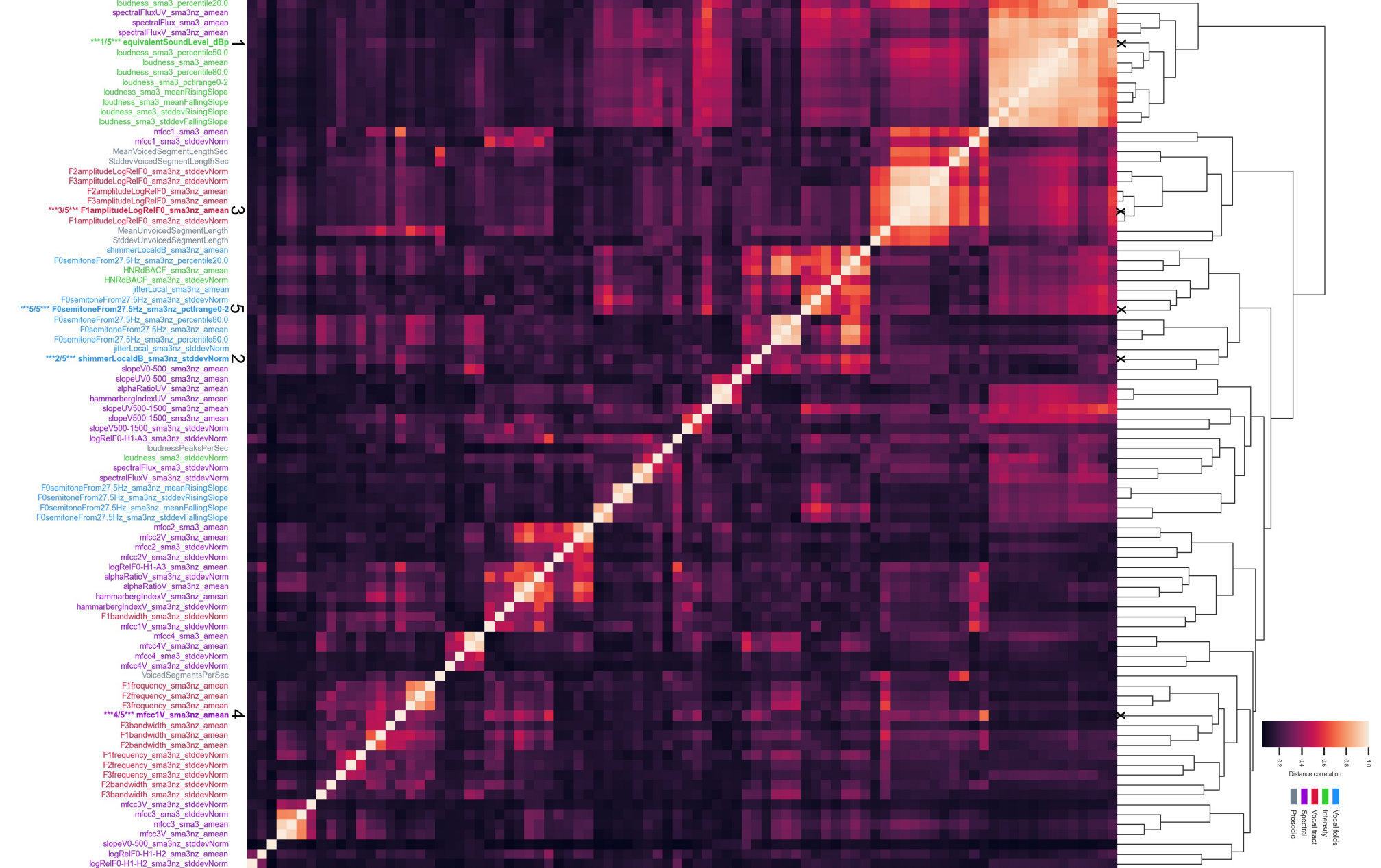
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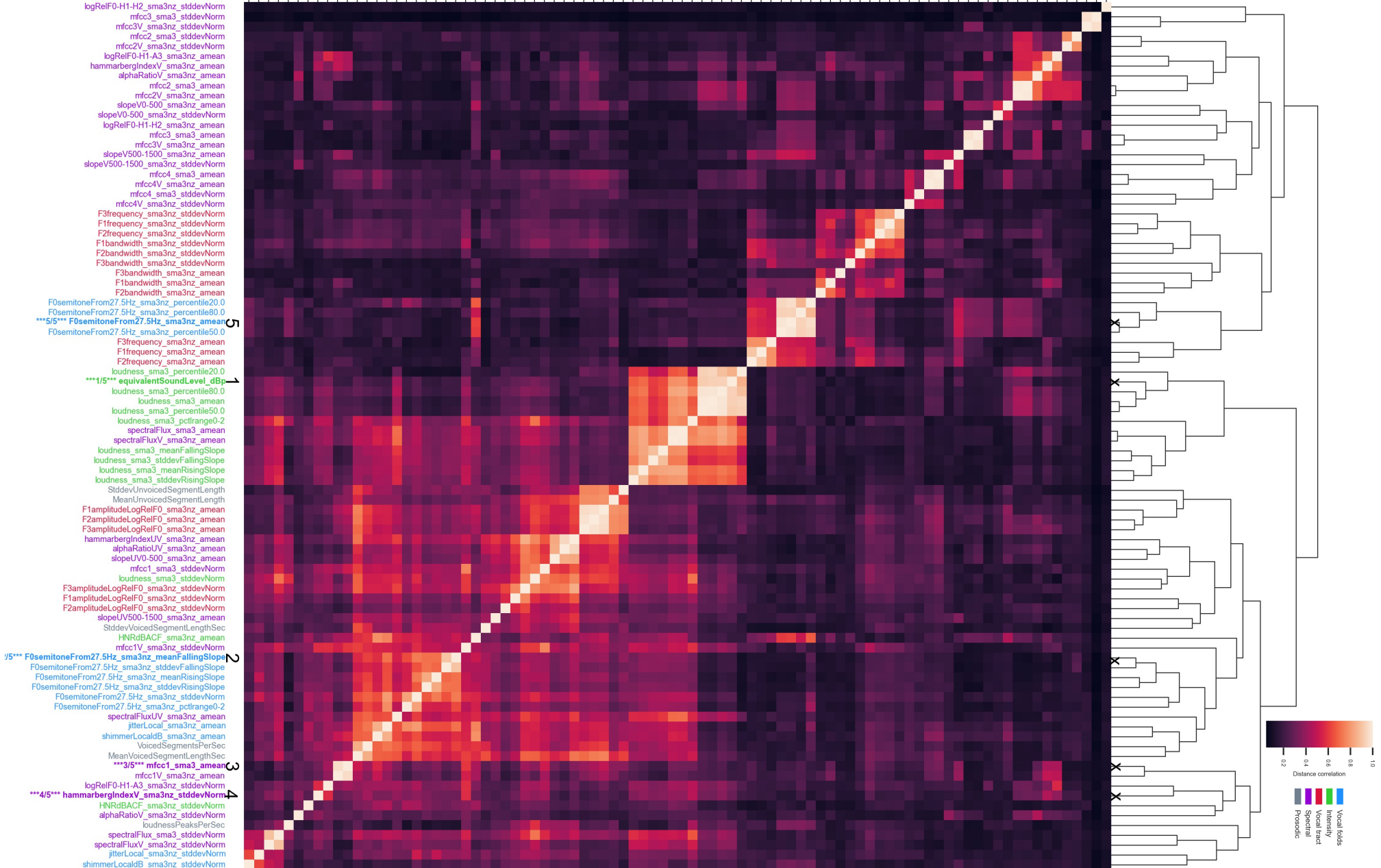
spectralFluxUV_sma3nz_amean
spectralFlux_sma3_amean
spectralFluxV_sma3nz_amean
1/5 equivalentSoundLevel_dBp
loudness_sma3_percentile50.0
loudness_sma3_amean
loudness_sma3_percentile80.0
loudness_sma3_pctlrange0-2
loudness_sma3_meanRisingSlope
loudness_sma3_meanFallingSlope
loudness_sma3_stddevRisingSlope
loudness_sma3_stddevFallingSlope
mfcc1_sma3_amean
mfcc1_sma3_stddevNorm
MeanVoicedSegmentLengthSec
StddevVoicedSegmentLengthSec
F2amplitudeLogRelF0_sma3nz_stddevNorm
F3amplitudeLogRelF0_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
3/5 F1amplitudeLogRelF0_sma3nz_amean
F1amplitudeLogRelF0_sma3nz_stddevNorm
MeanUnvoicedSegmentLength
StddevUnvoicedSegmentLength
shimmerLocaldB_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
HNRdBACF_sma3nz_amean
HNRdBACF_sma3nz_stddevNorm
jitterLocal_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
5/5 F0semitoneFrom27.5Hz_sma3nz_pctlrange0-2
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
F0semitoneFrom27.5Hz_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
jitterLocal_sma3nz_stddevNorm
2/5 shimmerLocaldB_sma3nz_stddevNorm
slopeV0-500_sma3nz_amean
slopeUV0-500_sma3nz_amean
alphaRatioUV_sma3nz_amean
hammarbergIndexUV_sma3nz_amean
slopeUV500-1500_sma3nz_amean
slopeV500-1500_sma3nz_amean
slopeV500-1500_sma3nz_stddevNorm
logRelF0-H1-A3_sma3nz_stddevNorm
loudnessPeaksPerSec
loudness_sma3_stddevNorm
spectralFlux_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
mfcc2_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
logRelF0-H1-A3_sma3nz_amean
alphaRatioV_sma3nz_stddevNorm
alphaRatioV_sma3nz_amean
hammarbergIndexV_sma3nz_amean
hammarbergIndexV_sma3nz_stddevNorm
F1bandwidth_sma3nz_stddevNorm
mfcc1V_sma3nz_stddevNorm
mfcc4_sma3_amean
mfcc4V_sma3nz_amean
mfcc4_sma3_stddevNorm
mfcc4V_sma3nz_stddevNorm
VoicedSegmentsPerSec
F1frequency_sma3nz_amean
F2frequency_sma3nz_amean
F3frequency_sma3nz_amean
4/5 mfcc1V_sma3nz_amean
F3bandwidth_sma3nz_amean
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F3frequency_sma3nz_stddevNorm
F2bandwidth_sma3nz_stddevNorm
F3bandwidth_sma3nz_stddevNorm
mfcc3V_sma3nz_stddevNorm
mfcc3_sma3_stddevNorm
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
slopeV0-500_sma3nz_stddevNorm
logRelF0-H1-H2_sma3nz_amean
logRelF0-H1-H2_sma3nz_stddevNorm
1
3
5
2
4
0.2
0.4
0.6
0.8
1.0
Distance correlation
Prosodic
Spectral
Vocal tract
Intensity
Vocal folds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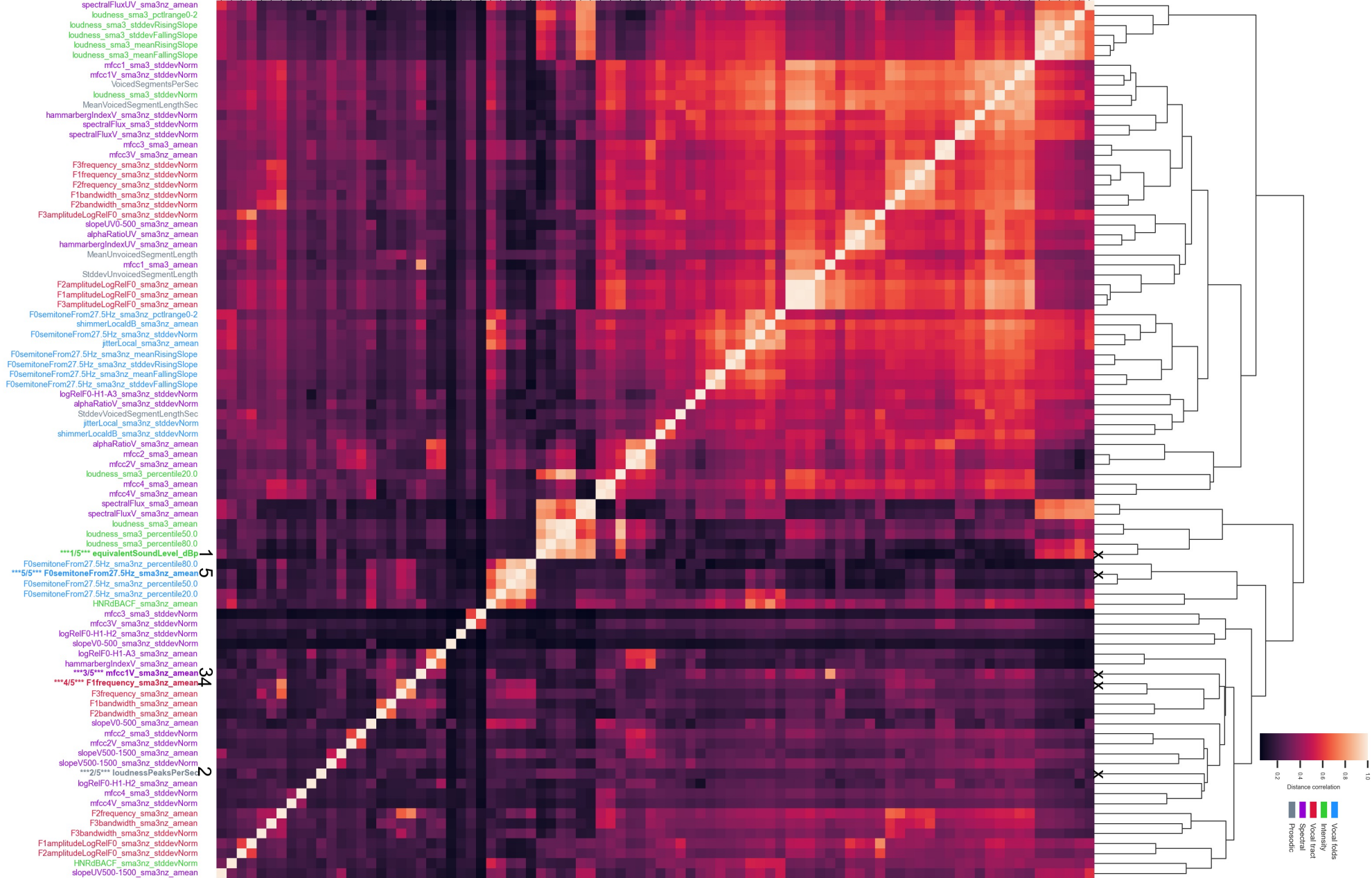
mfcc3_sma3_stddevNorm
mfcc3V_sma3nz_stddevNorm
mfcc2_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
logRelF0-H1-A3_sma3nz_amean
hammarbergIndexV_sma3nz_amean
alphaRatioV_sma3nz_amean
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
slopeV0-500_sma3nz_amean
slopeV0-500_sma3nz_stddevNorm
logRelF0-H1-H2_sma3nz_amean
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
slopeV500-1500_sma3nz_amean
slopeV500-1500_sma3nz_stddevNorm
mfcc4_sma3_amean
mfcc4V_sma3nz_amean
mfcc4_sma3_stddevNorm
mfcc4V_sma3nz_stddevNorm
F3frequency_sma3nz_stddevNorm
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F1bandwidth_sma3nz_stddevNorm
F2bandwidth_sma3nz_stddevNorm
F3bandwidth_sma3nz_stddevNorm
F3bandwidth_sma3nz_amean
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
5/5 F0semitoneFrom27.5Hz_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
F3frequency_sma3nz_amean
F1frequency_sma3nz_amean
F2frequency_sma3nz_amean
loudness_sma3_percentile20.0
1/5 equivalentSoundLevel_dBp
loudness_sma3_percentile80.0
loudness_sma3_amean
loudness_sma3_percentile50.0
loudness_sma3_pctlrange0-2
spectralFlux_sma3_amean
spectralFluxV_sma3nz_amean
loudness_sma3_meanFallingSlope
loudness_sma3_stddevFallingSlope
loudness_sma3_meanRisingSlope
loudness_sma3_stddevRisingSlope
StddevUnvoicedSegmentLength
MeanUnvoicedSegmentLength
F1amplitudeLogRelF0_sma3nz_amean
F2amplitudeLogRelF0_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
hammarbergIndexUV_sma3nz_amean
alphaRatioUV_sma3nz_amean
slopeUV0-500_sma3nz_amean
mfcc1_sma3_stddevNorm
loudness_sma3_stddevNorm
F3amplitudeLogRelF0_sma3nz_stddevNorm
F1amplitudeLogRelF0_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_stddevNorm
slopeUV500-1500_sma3nz_amean
StddevVoicedSegmentLengthSec
HNRdBACF_sma3nz_amean
mfcc1V_sma3nz_stddevNorm
!/5*** F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_pctlrange0-2
spectralFluxUV_sma3nz_amean
jitterLocal_sma3nz_amean
shimmerLocaldB_sma3nz_amean
VoicedSegmentsPerSec
MeanVoicedSegmentLengthSec
3/5 mfcc1_sma3_amean
mfcc1V_sma3nz_amean
logRelF0-H1-A3_sma3nz_stddevNorm
4/5 hammarbergIndexV_sma3nz_stddevNorm
HNRdBACF_sma3nz_stddevNorm
alphaRatioV_sma3nz_stddevNorm
loudnessPeaksPerSec
spectralFlux_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
jitterLocal_sma3nz_stddevNorm
shimmerLocaldB_sma3nz_stddevNorm
5
1
2
3
4
0.2
0.4
0.6
0.8
1.0
Distance correlation
Prosodic
Spectral
Vocal tract
Intensity
Vocal folds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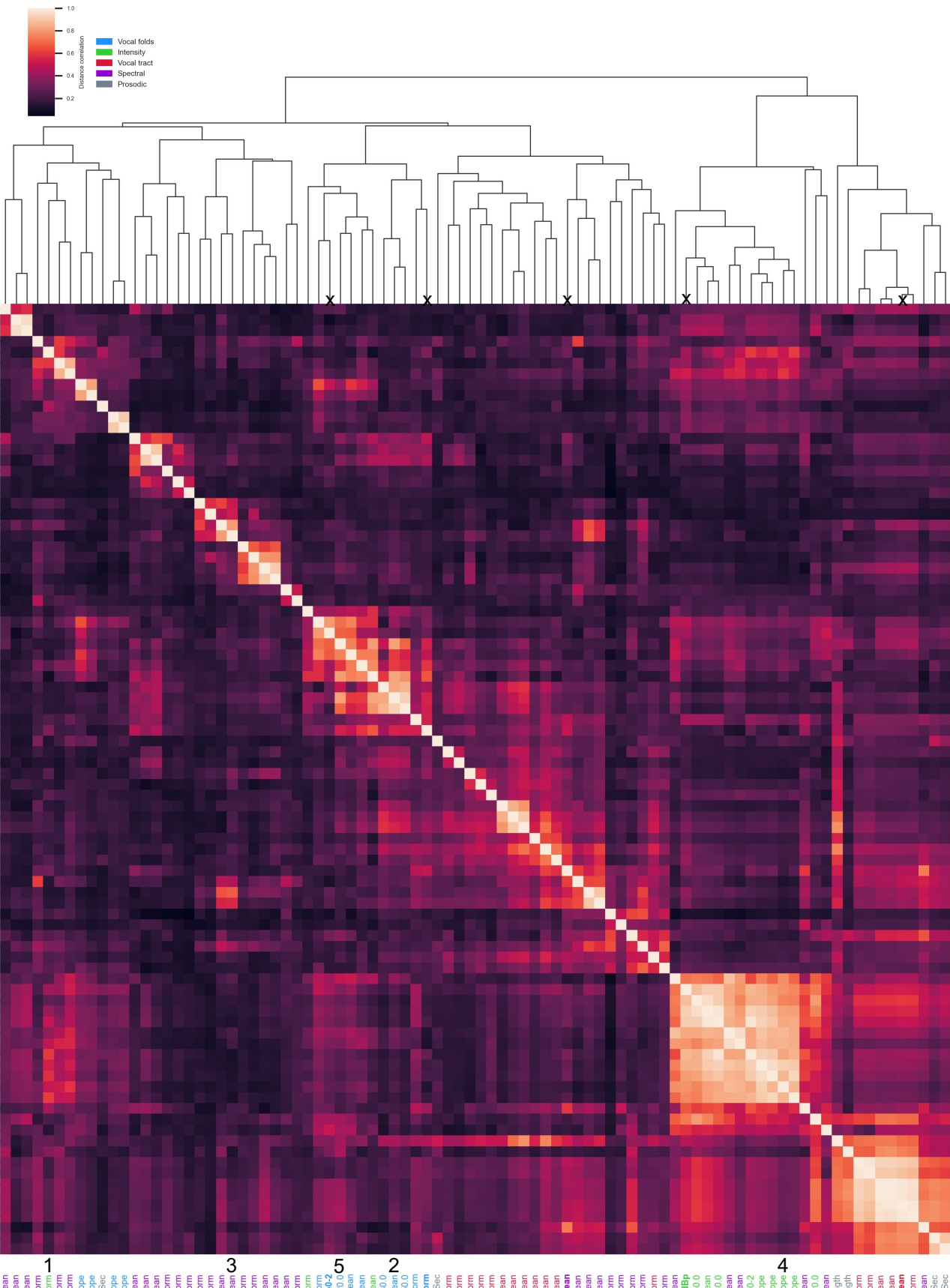
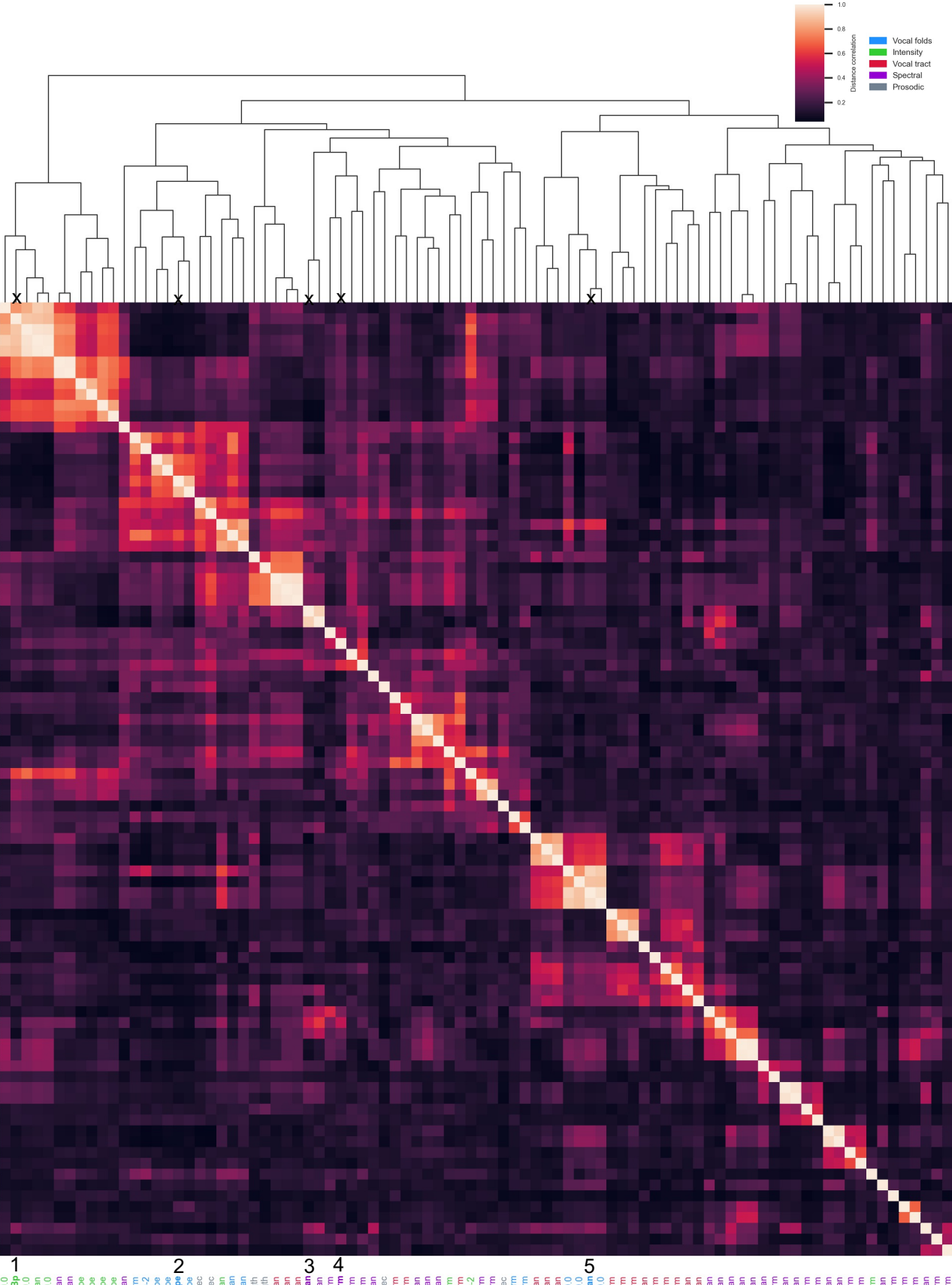
loudness_sma3_stddevFallingSlope
loudness_sma3_meanRisingSlope
loudness_sma3_meanFallingSlope
mfcc1_sma3_stddevNorm
mfcc1V_sma3nz_stddevNorm
VoicedSegmentsPerSec
loudness_sma3_stddevNorm
MeanVoicedSegmentLengthSec
hammarbergIndexV_sma3nz_stddevNorm
spectralFlux_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
F3frequency_sma3nz_stddevNorm
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F1bandwidth_sma3nz_stddevNorm
F2bandwidth_sma3nz_stddevNorm
F3amplitudeLogRelF0_sma3nz_stddevNorm
slopeUV0-500_sma3nz_amean
alphaRatioUV_sma3nz_amean
hammarbergIndexUV_sma3nz_amean
MeanUnvoicedSegmentLength
mfcc1_sma3_amean
StddevUnvoicedSegmentLength
F2amplitudeLogRelF0_sma3nz_amean
F1amplitudeLogRelF0_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_pctlrange0-2
shimmerLocaldB_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
jitterLocal_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
logRelF0-H1-A3_sma3nz_stddevNorm
alphaRatioV_sma3nz_stddevNorm
StddevVoicedSegmentLengthSec
jitterLocal_sma3nz_stddevNorm
shimmerLocaldB_sma3nz_stddevNorm
alphaRatioV_sma3nz_amean
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
loudness_sma3_percentile20.0
mfcc4_sma3_amean
mfcc4V_sma3nz_amean
spectralFlux_sma3_amean
spectralFluxV_sma3nz_amean
loudness_sma3_amean
loudness_sma3_percentile50.0
loudness_sma3_percentile80.0
1/5 equivalentSoundLevel_dBp
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
5/5 F0semitoneFrom27.5Hz_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
HNRdBACF_sma3nz_amean
mfcc3_sma3_stddevNorm
mfcc3V_sma3nz_stddevNorm
logRelF0-H1-H2_sma3nz_stddevNorm
slopeV0-500_sma3nz_stddevNorm
logRelF0-H1-A3_sma3nz_amean
hammarbergIndexV_sma3nz_amean
3/5 mfcc1V_sma3nz_amean
4/5 F1frequency_sma3nz_amean
F3frequency_sma3nz_amean
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
slopeV0-500_sma3nz_amean
mfcc2_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
slopeV500-1500_sma3nz_amean
slopeV500-1500_sma3nz_stddevNorm
2/5 loudnessPeaksPerSec
logRelF0-H1-H2_sma3nz_amean
mfcc4_sma3_stddevNorm
mfcc4V_sma3nz_stddevNorm
F2frequency_sma3nz_amean
F3bandwidth_sma3nz_amean
F3bandwidth_sma3nz_stddevNorm
F1amplitudeLogRelF0_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_stddevNorm
HNRdBACF_sma3nz_stddevNorm
slopeUV500-1500_sma3nz_amean
1
5
34
2
0.2
0.4
0.6
0.8
1.0
Distance correlation
Prosodic
Spectral
Vocal tract
Intensity
Vocal folds


Distance correlation
1.0
0.8
0.6
0.4
0.2
Vocal folds
Intensity
Vocal tract
Spectral
Prosodic
1
3
5
2
4
slopeUV0-500_sma3nz_amean
alphaRatioUV_sma3nz_amean
hammarbergIndexUV_sma3nz_amean
logRelF0-H1-A3_sma3nz_stddevNorm
loudness_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
loudnessPeaksPerSec
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
slopeV0-500_sma3nz_amean
mfcc4_sma3_amean
mfccV_sma3nz_amean
slopeV0-500_sma3nz_stddevNorm
mfcc4_sma3nz_stddevNorm
mfccV_sma3nz_stddevNorm
mfcc2_sma3_stddevNorm
mfccV_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
mfcc3V_sma3nz_stddevNorm
mfcc3_sma3_stddevNorm
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
logRelF0-H1-H2_sma3nz_amean
logRelF0-H1-H2_sma3nz_stddevNorm
HNRdBACF_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
5/5 F0semitoneFrom27.5Hz_sma3nz_pctlrange0-2
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
jitterLocal_sma3nz_amean
shimmerLocaldB_sma3nz_amean
HNRdBACF_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
F0semitoneFrom27.5Hz_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
jitterLocal_sma3nz_stddevNorm
2/5 shimmerLocaldB_sma3nz_stddevNorm
VoicedSegmentsPerSec
F2bandwidth_sma3nz_stddevNorm
F3bandwidth_sma3nz_stddevNorm
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F3frequency_sma3nz_stddevNorm
F1frequency_sma3nz_amean
F2frequency_sma3nz_amean
F3frequency_sma3nz_amean
F3bandwidth_sma3nz_amean
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
4/5 mfccV_sma3nz_amean
logRelF0-H1-A3_sma3nz_amean
alphaRatioV_sma3nz_amean
hammarbergIndexV_sma3nz_amean
hammarbergIndexV_sma3nz_stddevNorm
slopeV500-1500_sma3nz_stddevNorm
mfcc1_sma3_stddevNorm
alphaRatioV_sma3nz_stddevNorm
F1bandwidth_sma3nz_stddevNorm
mfcc1V_sma3nz_stddevNorm
spectralFluxUV_sma3nz_amean
1/5 equivalentSoundLevel_dBp
loudness_sma3_percentile50.0
loudness_sma3_amean
loudness_sma3_percentile80.0
spectralFlux_sma3_amean
spectralFluxV_sma3nz_amean
loudness_sma3_pctlrange0-2
loudness_sma3_meanRisingSlope
loudness_sma3_meanFallingSlope
loudness_sma3_stddevRisingSlope
loudness_sma3_stddevFallingSlope
slopeV500-1500_sma3nz_amean
loudness_sma3_percentile20.0
slopeUV500-1500_sma3nz_amean
MeanUnvoicedSegmentLength
StddevUnvoicedSegmentLength
F2amplitudeLogRelF0_sma3nz_stddevNorm
F3amplitudeLogRelF0_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
3/5 F1amplitudeLogRelF0_sma3nz_amean
F1amplitudeLogRelF0_sma3nz_stddevNorm
mfcc1_sma3_amean
MeanVoicedSegmentLengthSec
StddevVoicedSegmentLengthSec


Distance correlation
1.0
0.8
0.6
0.4
0.2
Vocal folds
Intensity
Vocal tract
Spectral
Prosodic
1
2
3
4
5
loudness_sma3_percentile20.0
1/5 equivalentSoundLevel_dBp
loudness_sma3_percentile80.0
loudness_sma3_amean
loudness_sma3_percentile50.0
spectralFlux_sma3_amean
spectralFluxV_sma3nz_amean
loudness_sma3_meanFallingSlope
loudness_sma3_stddevFallingSlope
loudness_sma3_meanRisingSlope
loudness_sma3_stddevRisingSlope
spectralFluxUV_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
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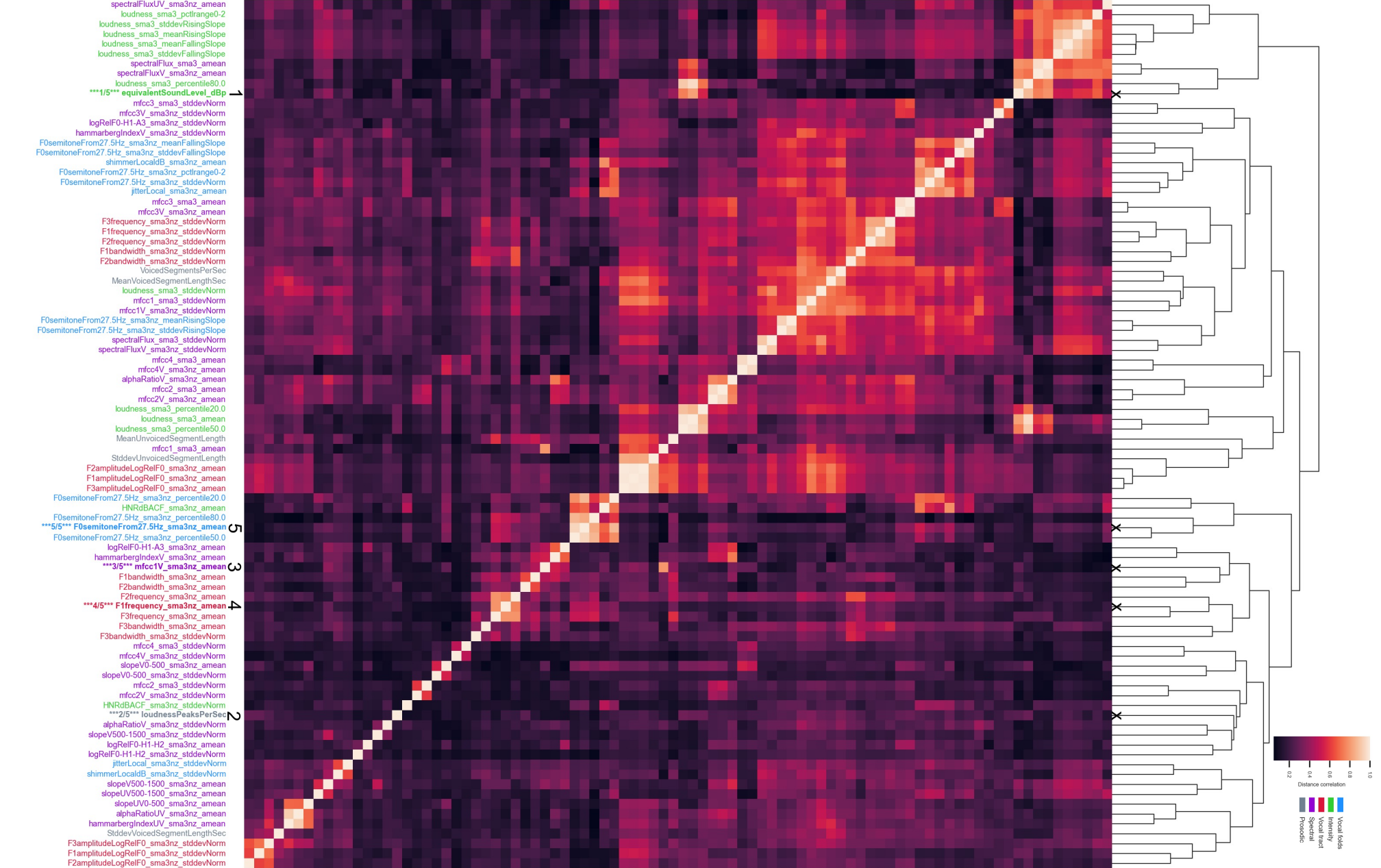
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
5 F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
MeanVoicedSegmentLengthSec
MeanUnvoicedSegmentLengthSec
HNRdBACF_sma3nz_amean
jitterLocal_sma3nz_amean
shimmerLocaldB_sma3nz_amean
MeanUnvoicedSegmentLength
StddevUnvoicedSegmentLength
F1amplitudeLogRelF0_sma3nz_amean
F2amplitudeLogRelF0_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
3/5 mfcc1_sma3_amean
mfcc1V_sma3nz_amean
logRelF0-H1-A3_sma3nz_stddevNorm
4/5 hammarbergIndexV_sma3nz_stddevNorm
mfcc1_sma3_stddevNorm
mfcc1V_sma3nz_stddevNorm
slopeUV500-1500_sma3nz_amean
StddevVoicedSegmentLengthSec
F1amplitudeLogRelF0_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_stddevNorm
hammarbergIndexUV_sma3nz_amean
alphaRatioUV_sma3nz_amean
slopeUV0-500_sma3nz_amean
loudness_sma3_stddevNorm
F3amplitudeLogRelF0_sma3nz_stddevNorm
loudness_sma3_pctrange0-2
spectralFlux_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
loudnessPeaksPerSec
jitterLocal_sma3nz_stddevNorm
shimmerLocaldB_sma3nz_stddevNorm
F3frequency_sma3nz_amean
F1frequency_sma3nz_amean
F2frequency_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
5 F0semitoneFrom27.5Hz_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
F3frequency_sma3nz_stddevNorm
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F3bandwidth_sma3nz_amean
F3bandwidth_sma3nz_stddevNorm
F1bandwidth_sma3nz_stddevNorm
F2bandwidth_sma3nz_stddevNorm
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
logRelF0-H1-A3_sma3nz_amean
hammarbergIndexV_sma3nz_amean
alphaRatioV_sma3nz_amean
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
slopeV0-500_sma3nz_amean
slopeV0-500_sma3nz_stddevNorm
mfcc4_sma3_amean
mfcc4V_sma3nz_amean
mfcc4_sma3_stddevNorm
mfcc4V_sma3nz_stddevNorm
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
mfcc3_sma3_stddevNorm
mfcc3V_sma3nz_stddevNorm
HNRdBACF_sma3nz_stddevNorm
logRelF0-H1-H2_sma3nz_amean
logRelF0-H1-H2_sma3nz_stddevNorm
mfcc2_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
slopeV500-1500_sma3nz_amean
alphaRatioV_sma3nz_stddevNorm
slopeV500-1500_sma3nz_stddevNorm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loudness_sma3_stddevRisingSlope
loudness_sma3_meanRisingSlope
loudness_sma3_meanFallingSlope
loudness_sma3_stddevFallingSlope
spectralFlux_sma3_amean
spectralFluxV_sma3nz_amean
loudness_sma3_percentile80.0
1/5 equivalentSoundLevel_dBp
mfcc3_sma3_stddevNorm
mfcc3V_sma3nz_stddevNorm
logRelF0-H1-A3_sma3nz_stddevNorm
hammarbergIndexV_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
shimmerLocaldB_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_pctlrange0-2
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
jitterLocal_sma3nz_amean
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
F3frequency_sma3nz_stddevNorm
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F1bandwidth_sma3nz_stddevNorm
F2bandwidth_sma3nz_stddevNorm
VoicedSegmentsPerSec
MeanVoicedSegmentLengthSec
loudness_sma3_stddevNorm
mfcc1_sma3_stddevNorm
mfcc1V_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
spectralFlux_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
mfcc4_sma3_amean
mfcc4V_sma3nz_amean
alphaRatioV_sma3nz_amean
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
loudness_sma3_percentile20.0
loudness_sma3_amean
loudness_sma3_percentile50.0
MeanUnvoicedSegmentLength
mfcc1_sma3_amean
StddevUnvoicedSegmentLength
F2amplitudeLogRelF0_sma3nz_amean
F1amplitudeLogRelF0_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
HNRdBACF_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
5/5 F0semitoneFrom27.5Hz_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
logRelF0-H1-A3_sma3nz_amean
hammarbergIndexV_sma3nz_amean
3/5 mfcc1V_sma3nz_amean
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
F2frequency_sma3nz_amean
4/5 F1frequency_sma3nz_amean
F3frequency_sma3nz_amean
F3bandwidth_sma3nz_amean
F3bandwidth_sma3nz_stddevNorm
mfcc4_sma3_stddevNorm
mfcc4V_sma3nz_stddevNorm
slopeV0-500_sma3nz_amean
slopeV0-500_sma3nz_stddevNorm
mfcc2_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
HNRdBACF_sma3nz_stddevNorm
2/5 loudnessPeaksPerSec
alphaRatioV_sma3nz_stddevNorm
slopeV500-1500_sma3nz_stddevNorm
logRelF0-H1-H2_sma3nz_amean
logRelF0-H1-H2_sma3nz_stddevNorm
jitterLocal_sma3nz_stddevNorm
shimmerLocaldB_sma3nz_stddevNorm
slopeV500-1500_sma3nz_amean
slopeUV500-1500_sma3nz_amean
slopeUV0-500_sma3nz_amean
alphaRatioUV_sma3nz_amean
hammarbergIndexUV_sma3nz_amean
StddevVoicedSegmentLengthSec
F3amplitudeLogRelF0_sma3nz_stddevNorm
F1amplitudeLogRelF0_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_stddevNorm
1
5
3
4
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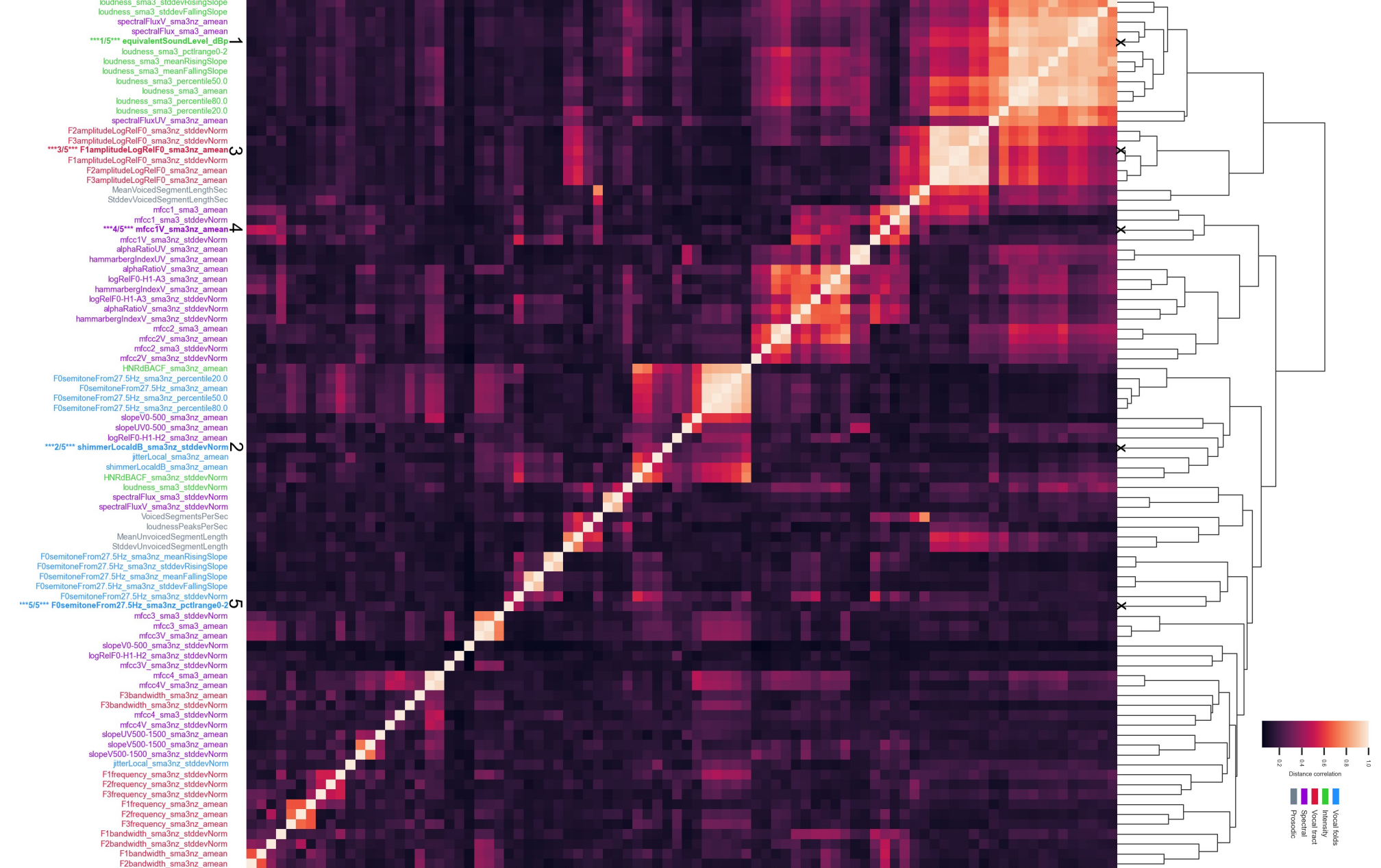
0.2
0.4
0.6
0.8
1.0
Distance correlation
Prosodic
Spectral
Vocal tract
Intensity
Vocal folds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loudness_sma3_stddevFallingSlope
spectralFluxV_sma3nz_amean
spectralFlux_sma3_amean
1/5 equivalentSoundLevel_dBp
loudness_sma3_pctlrange0-2
loudness_sma3_meanRisingSlope
loudness_sma3_meanFallingSlope
loudness_sma3_percentile50.0
loudness_sma3_amean
loudness_sma3_percentile80.0
loudness_sma3_percentile20.0
spectralFluxUV_sma3nz_amean
F2amplitudeLogRelF0_sma3nz_stddevNorm
F3amplitudeLogRelF0_sma3nz_stddevNorm
3/5 F1amplitudeLogRelF0_sma3nz_amean
F1amplitudeLogRelF0_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
MeanVoicedSegmentLengthSec
StddevVoicedSegmentLengthSec
mfcc1_sma3_amean
mfcc1_sma3_stddevNorm
4/5 mfcc1V_sma3nz_amean
mfcc1V_sma3nz_stddevNorm
alphaRatioUV_sma3nz_amean
hammarbergIndexUV_sma3nz_amean
alphaRatioV_sma3nz_amean
logRelF0-H1-A3_sma3nz_amean
hammarbergIndexV_sma3nz_amean
logRelF0-H1-A3_sma3nz_stddevNorm
alphaRatioV_sma3nz_stddevNorm
hammarbergIndexV_sma3nz_stddevNorm
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
mfcc2_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
HNRdBACF_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
F0semitoneFrom27.5Hz_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
slopeV0-500_sma3nz_amean
slopeUV0-500_sma3nz_amean
logRelF0-H1-H2_sma3nz_amean
2/5 shimmerLocaldB_sma3nz_stddevNorm
jitterLocal_sma3nz_amean
shimmerLocaldB_sma3nz_amean
HNRdBACF_sma3nz_stddevNorm
loudness_sma3_stddevNorm
spectralFlux_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
VoicedSegmentsPerSec
loudnessPeaksPerSec
MeanUnvoicedSegmentLength
StddevUnvoicedSegmentLength
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
5/5 F0semitoneFrom27.5Hz_sma3nz_pctlrange0-2
mfcc3_sma3_stddevNorm
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
slopeV0-500_sma3nz_stddevNorm
logRelF0-H1-H2_sma3nz_stddevNorm
mfcc3V_sma3nz_stddevNorm
mfcc4_sma3_amean
mfcc4V_sma3nz_amean
F3bandwidth_sma3nz_amean
F3bandwidth_sma3nz_stddevNorm
mfcc4_sma3_stddevNorm
mfcc4V_sma3nz_stddevNorm
slopeUV500-1500_sma3nz_amean
slopeV500-1500_sma3nz_amean
slopeV500-1500_sma3nz_stddevNorm
jitterLocal_sma3nz_stddevNorm
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F3frequency_sma3nz_stddevNorm
F1frequency_sma3nz_amean
F2frequency_sma3nz_amean
F3frequency_sma3nz_amean
F1bandwidth_sma3nz_stddevNorm
F2bandwidth_sma3nz_stddevNorm
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
1
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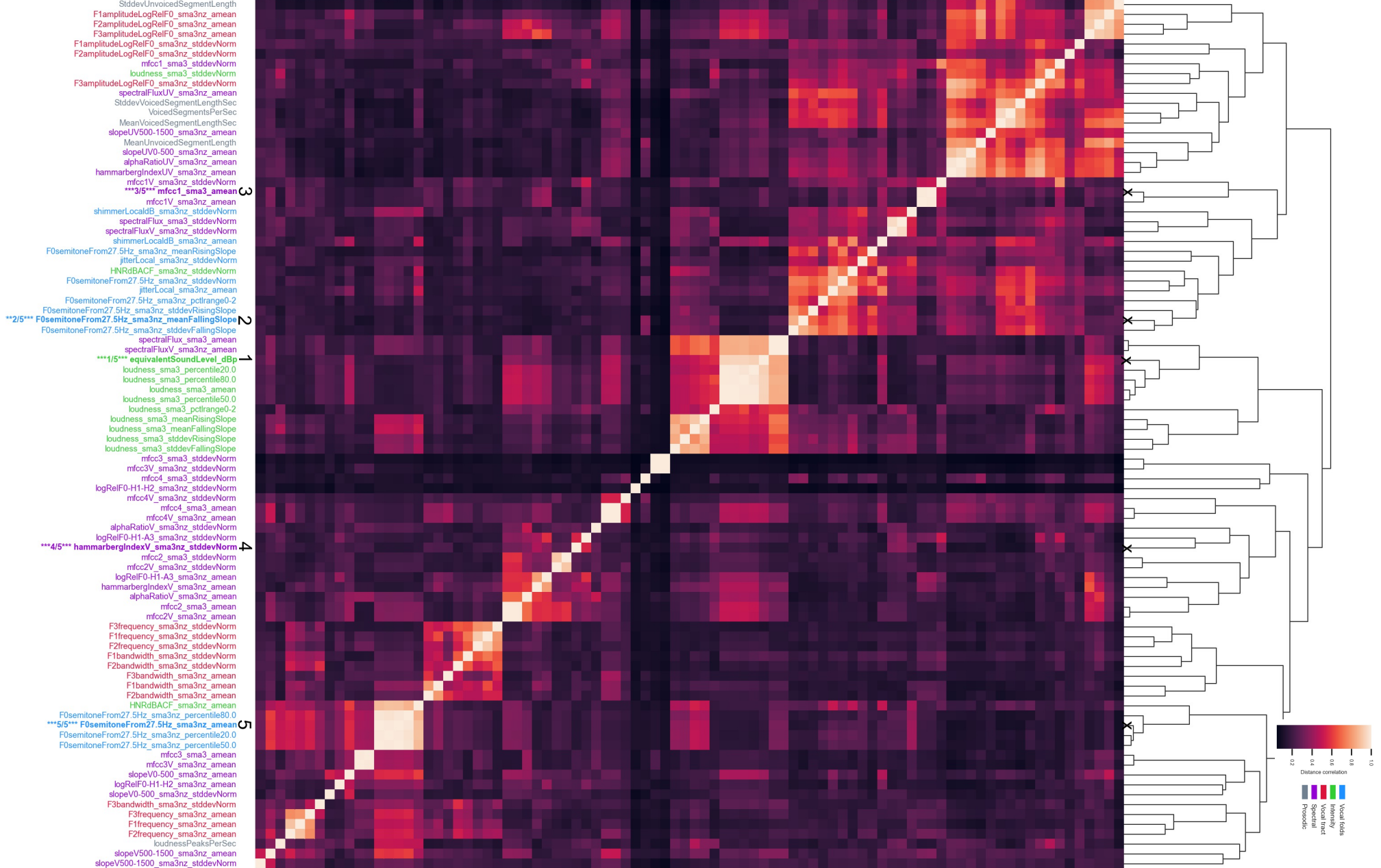
0.2
0.4
0.6
0.8
1.0
Distance correlation
Prosodic
Spectral
Vocal tract
Intensity
Vocal folds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F2amplitudeLogRelF0_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
F1amplitudeLogRelF0_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_stddevNorm
mfcc1_sma3_stddevNorm
loudness_sma3_stddevNorm
F3amplitudeLogRelF0_sma3nz_stddevNorm
spectralFluxUV_sma3nz_amean
StddevVoicedSegmentLengthSec
VoicedSegmentsPerSec
MeanVoicedSegmentLengthSec
slopeUV500-1500_sma3nz_amean
MeanUnvoicedSegmentLength
slopeUV0-500_sma3nz_amean
alphaRatioUV_sma3nz_amean
hammarbergIndexUV_sma3nz_amean
mfcc1V_sma3nz_stddevNorm
3/5 mfcc1_sma3_amean
mfcc1V_sma3nz_amean
shimmerLocaldB_sma3nz_stddevNorm
spectralFlux_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
shimmerLocaldB_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
jitterLocal_sma3nz_stddevNorm
HNRdBACF_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
jitterLocal_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_pctlrange0-2
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
2/5* F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
spectralFlux_sma3_amean
spectralFluxV_sma3nz_amean
1/5 equivalentSoundLevel_dBp
loudness_sma3_percentile20.0
loudness_sma3_percentile80.0
loudness_sma3_amean
loudness_sma3_percentile50.0
loudness_sma3_pctlrange0-2
loudness_sma3_meanRisingSlope
loudness_sma3_meanFallingSlope
loudness_sma3_stddevRisingSlope
loudness_sma3_stddevFallingSlope
mfcc3_sma3_stddevNorm
mfcc3V_sma3nz_stddevNorm
mfcc4_sma3_stddevNorm
logRelF0-H1-H2_sma3nz_stddevNorm
mfcc4V_sma3nz_stddevNorm
mfcc4_sma3_amean
mfcc4V_sma3nz_amean
alphaRatioV_sma3nz_stddevNorm
logRelF0-H1-A3_sma3nz_stddevNorm
4/5 hammarbergIndexV_sma3nz_stddevNorm
mfcc2_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
logRelF0-H1-A3_sma3nz_amean
hammarbergIndexV_sma3nz_amean
alphaRatioV_sma3nz_amean
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
F3frequency_sma3nz_stddevNorm
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F1bandwidth_sma3nz_stddevNorm
F2bandwidth_sma3nz_stddevNorm
F3bandwidth_sma3nz_amean
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
HNRdBACF_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
5/5 F0semitoneFrom27.5Hz_sma3nz_amean
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
slopeV0-500_sma3nz_amean
logRelF0-H1-H2_sma3nz_amean
slopeV0-500_sma3nz_stddevNorm
F3bandwidth_sma3nz_stddevNorm
F3frequency_sma3nz_amean
F1frequency_sma3nz_amean
F2frequency_sma3nz_amean
loudnessPeaksPerSec
slopeV500-1500_sma3nz_amean
slopeV500-1500_sma3nz_stddevNorm
3
2
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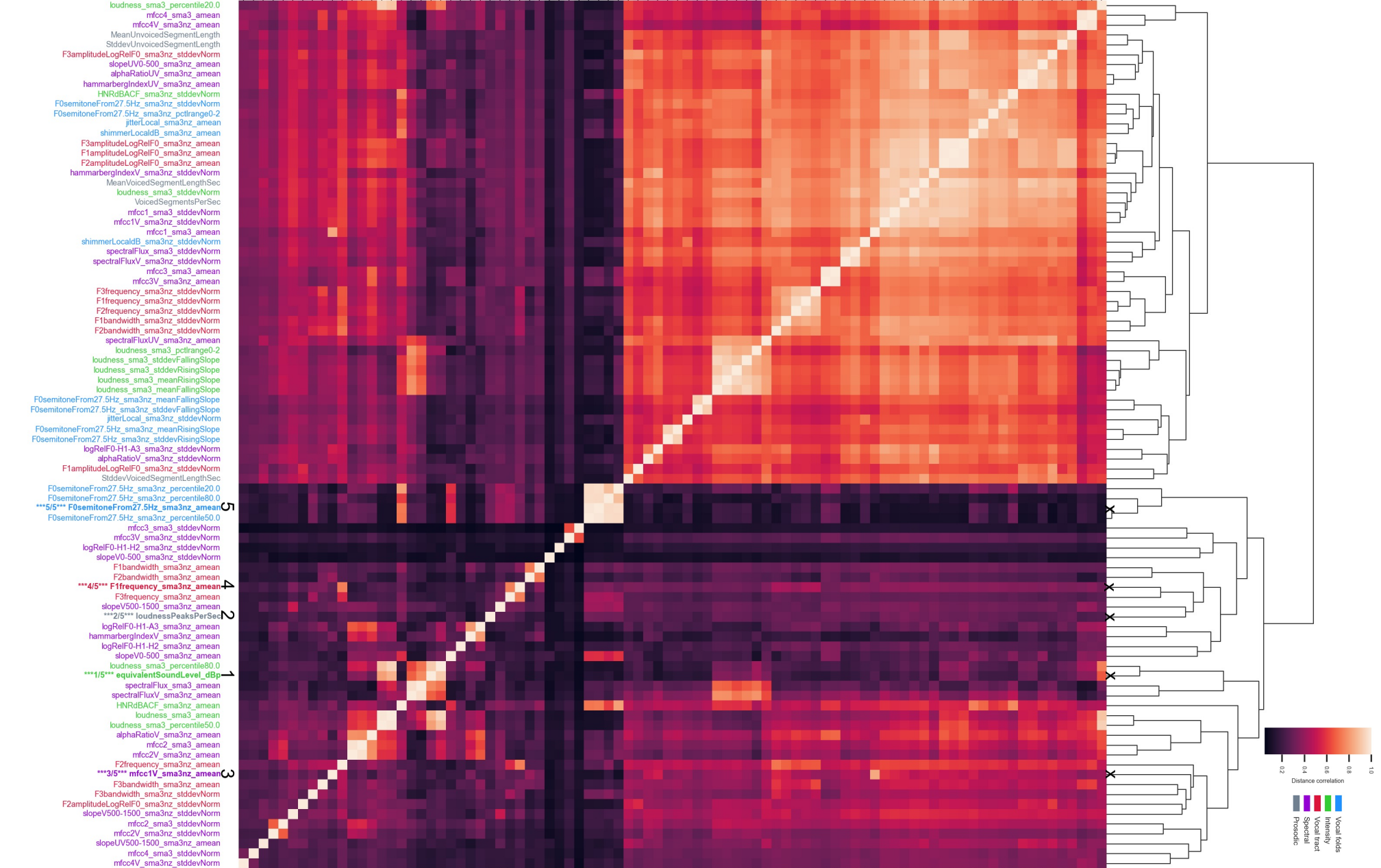
0.2
0.4
0.6
0.8
1.0
Distance correlation
Prosodic
Spectral
Voicing
Intensity
Vocal tract
Vocal folds


loudness_sma3_percentile20.0
mfcc4_sma3_amean
mfcc4V_sma3nz_amean
MeanUnvoicedSegmentLength
StddevUnvoicedSegmentLength
F3amplitudeLogRelF0_sma3nz_stddevNorm
slopeUV0-500_sma3nz_amean
alphaRatioUV_sma3nz_amean
hammarbergIndexUV_sma3nz_amean
HNRdBACF_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_pctlrange0-2
jitterLocal_sma3nz_amean
shimmerLocaldB_sma3nz_amean
F3amplitudeLogRelF0_sma3nz_amean
F1amplitudeLogRelF0_sma3nz_amean
F2amplitudeLogRelF0_sma3nz_amean
hammarbergIndexV_sma3nz_stddevNorm
MeanVoicedSegmentLengthSec
loudness_sma3_stddevNorm
VoicedSegmentsPerSec
mfcc1_sma3_stddevNorm
mfcc1V_sma3nz_stddevNorm
mfcc1_sma3_amean
shimmerLocaldB_sma3nz_stddevNorm
spectralFlux_sma3_stddevNorm
spectralFluxV_sma3nz_stddevNorm
mfcc3_sma3_amean
mfcc3V_sma3nz_amean
F3frequency_sma3nz_stddevNorm
F1frequency_sma3nz_stddevNorm
F2frequency_sma3nz_stddevNorm
F1bandwidth_sma3nz_stddevNorm
F2bandwidth_sma3nz_stddevNorm
spectralFluxUV_sma3nz_amean
loudness_sma3_pctlrange0-2
loudness_sma3_stddevFallingSlope
loudness_sma3_stddevRisingSlope
loudness_sma3_meanRisingSlope
loudness_sma3_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_meanFallingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevFallingSlope
jitterLocal_sma3nz_stddevNorm
F0semitoneFrom27.5Hz_sma3nz_meanRisingSlope
F0semitoneFrom27.5Hz_sma3nz_stddevRisingSlope
logRelF0-H1-A3_sma3nz_stddevNorm
alphaRatioV_sma3nz_stddevNorm
F1amplitudeLogRelF0_sma3nz_stddevNorm
StddevVoicedSegmentLengthSec
F0semitoneFrom27.5Hz_sma3nz_percentile20.0
F0semitoneFrom27.5Hz_sma3nz_percentile80.0
5/5 F0semitoneFrom27.5Hz_sma3nz_amean
5
F0semitoneFrom27.5Hz_sma3nz_percentile50.0
mfcc3_sma3_stddevNorm
mfcc3V_sma3nz_stddevNorm
logRelF0-H1-H2_sma3nz_stddevNorm
slopeV0-500_sma3nz_stddevNorm
F1bandwidth_sma3nz_amean
F2bandwidth_sma3nz_amean
4/5 F1frequency_sma3nz_amean
4
F3frequency_sma3nz_amean
slopeV500-1500_sma3nz_amean
2/5 loudnessPeaksPerSec
2
logRelF0-H1-A3_sma3nz_amean
hammarbergIndexV_sma3nz_amean
logRelF0-H1-H2_sma3nz_amean
slopeV0-500_sma3nz_amean
loudness_sma3_percentile80.0
1/5 equivalentSoundLevel_dBp
1
spectralFlux_sma3_amean
spectralFluxV_sma3nz_amean
HNRdBACF_sma3nz_amean
loudness_sma3_amean
loudness_sma3_percentile50.0
alphaRatioV_sma3nz_amean
mfcc2_sma3_amean
mfcc2V_sma3nz_amean
F2frequency_sma3nz_amean
3/5 mfcc1V_sma3nz_amean
3
F3bandwidth_sma3nz_amean
F3bandwidth_sma3nz_stddevNorm
F2amplitudeLogRelF0_sma3nz_stddevNorm
slopeV500-1500_sma3nz_stddevNorm
mfcc2_sma3_stddevNorm
mfcc2V_sma3nz_stddevNorm
slopeUV500-1500_sma3nz_amean
mfcc4_sma3_stddevNorm
mfcc4V_sma3nz_stddevNorm
0.2
0.4
0.6
0.8
1.0
Distance correlation
Prosodic
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Intensity
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