

Advances in Discrete Resonance Spectrogram Analysis

Using the DSR for Source Separation and Sequential Prediction

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TWO STACKED BLOCKS

Upper Block with bullets

- ▶ First point **using emphasis**
- ▶ Second point *using italics*
- ▶ Third point using underline

Lower Block with numbers

1. First point **using emphasis**
2. Second point *using italics*
3. Third point using underline

Object Detection and Recognition

First Heading

- ▶ First content
- ▶ Second content

Second Heading

- ▶ First content
- ▶ Second content

Third Heading

- ▶ First content
- ▶ Second content

TWO COLUMN BLOCKS

First Column



Flush left

Flush left

Second Column



Flush right

Flush right

SOURCE SEPARATION TO SEQUENTIAL PREDICTION

Discrete Resonance Spectrogram

TODO: (Insert wide aspect ratio image of DRS)

From Vertical to Horizontal Analysis

- ▶ Source separation looks at dependencies between frequencies **within a slice**, i.e. vertical analysis.
- ▶ Temporal correlations can be exploited to observe dependencies **between slices**, i.e. horizontal analysis.

BOUNDARY ENTROPY SEGMENTATION

SEQUENCE INTERPRETATION OF BES

NETWORK INTERPRETATION OF BES

HIERARCHICAL STRUCTURE AND DYNAMICS

MINIMUM DESCRIPTION LENGTH PRINCIPLE

PLACEMENT AND NEXT STEPS

Placement



Next Steps



APPLICATIONS AND FUTURE WORK

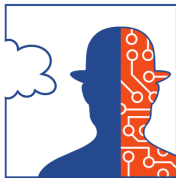
Applications



Future Work



THANK YOU!



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Computational Creativity Lab