

Document Title

Author Name

March 16, 2025

1 Introduction

This is a clean, minimalist template designed for professional documents. It provides good readability while maintaining a modern appearance.

2 ISPC Formula

The Intersite Phase Clustering (ISPC) is defined as:

$$\text{ISPC of } f = \left| \frac{1}{n} \sum_{t=1}^n e^{i(\phi_{xt} - \phi_{yt})} \right| \quad (1)$$

Where:

- n is the number of time points
- ϕ_{xt} is the phase angle of signal x at time t
- ϕ_{yt} is the phase angle of signal y at time t

It is the average of phase angle differences between signals over time.

Implementation in MATLAB:

```
ISPC = abs(mean(exp(1i * (angles1 - angles2))));
```

ISPC can be computed using a over time using a sliding window approach in a similar manner to the way FFT is computed in short-time FFT. The selection of the time segment length depends on the frequency and task. Longer segments gives better signal-to-noise ration but has worse time resolution.