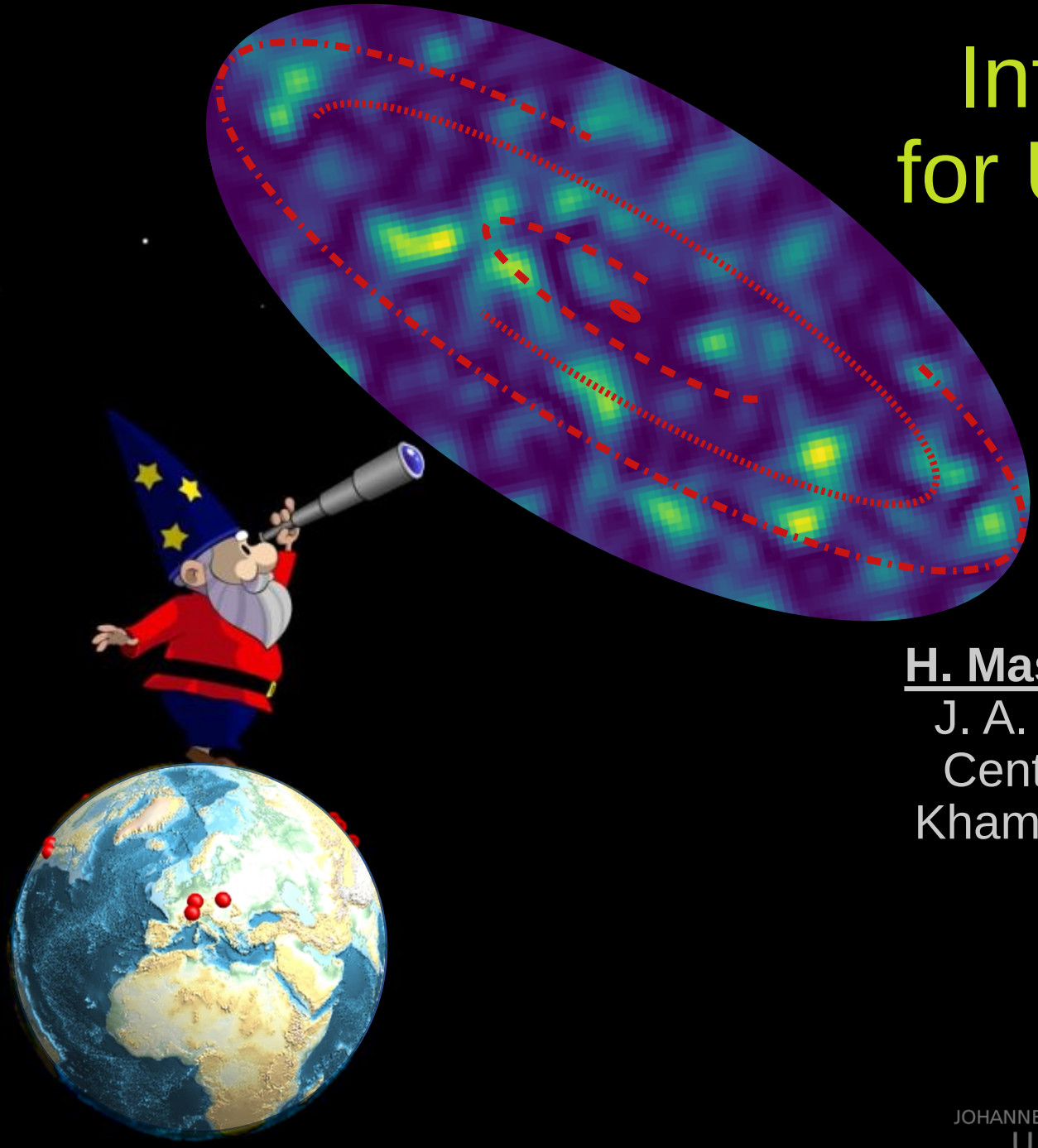

# Intensity Interferometry for Ultralight Bosonic Dark Matter Detection

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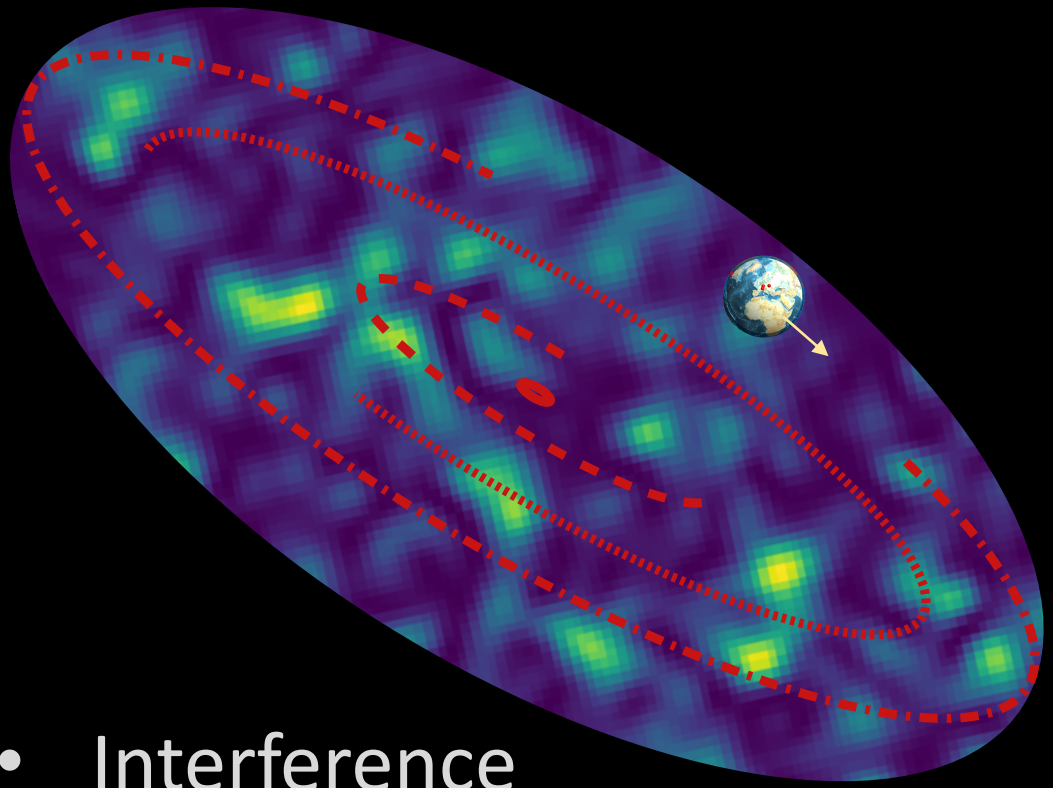
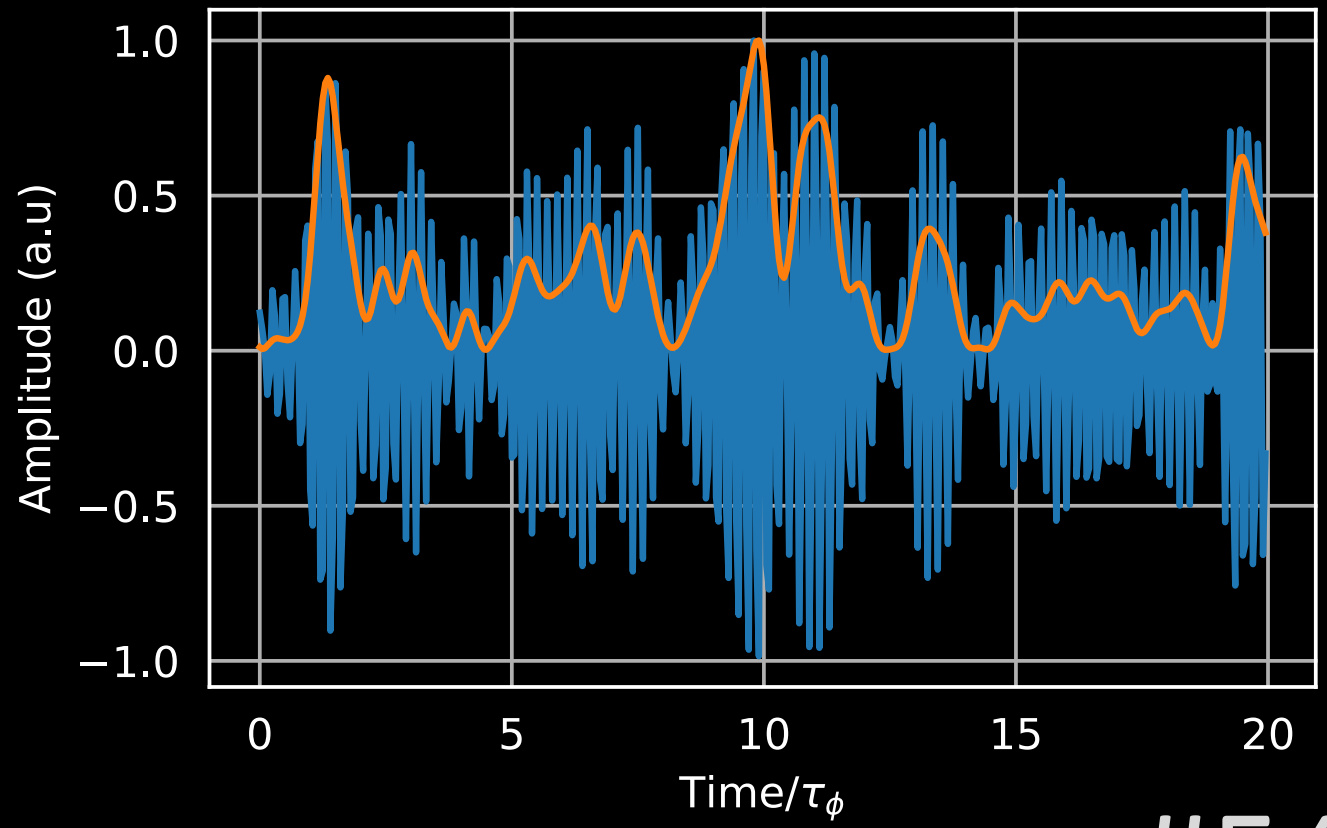
# Ultra-Light Bosonic Dark Matter Field

$$\varphi(\boldsymbol{r},t)=\frac{\varphi_0}{\sqrt{N}}\sum_n^N\cos(\omega_n t-\boldsymbol{k}_n\cdot\boldsymbol{r}+\theta_n)$$

- Quadratic coupling
- Near-zero frequency component

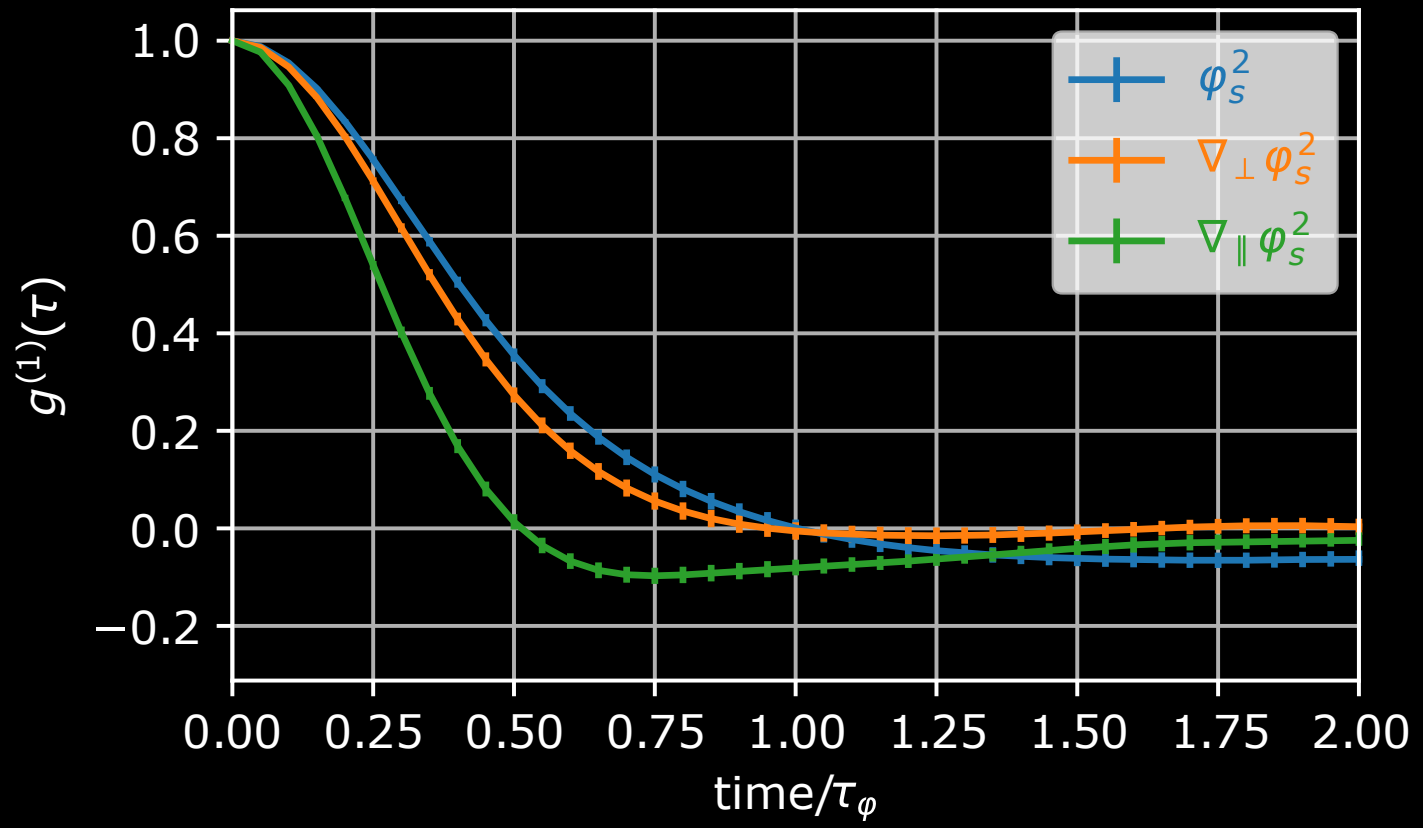


- Interference



# Global Network of Quantum Sensor

- Signature stochastic dark matter background
- Correlate sensors




- Explore beyond cosmological constraints