

# PennState Physics Colloquium

## Comparative neurobiology of vocal communication

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### Speaker Biographic Summary



Dr. Michael Long is

### Research Interests

Dr. Long's research focuses on []

*Decomposition of spin correlations, diagonal hole pair.* []

### Talk Abstract

Vocal communication is central to our everyday lives, facilitating social exchange. Despite significant recent discoveries, the neural mechanisms underlying coordinated vocal exchanges remain poorly understood. We examine the brain processes involved in interactive vocal behaviors, focusing on forebrain circuitry in the songbird and the rodent, and we relate these to emerging human studies that employ a range of methods to manipulate and monitor cortical areas relevant for speech.

### Brief Background

A []

B []

### References

- [1] J. Koepsell, D. Bourgund, P. Sompet, S. Hirthe, A. Bohrdt, Y. Wang, F. Grusdt, E. Demler, G. Salomon, C. Gross, and I. Bloch, arXiv:2009.04440 [cond-mat, physics:quant-ph] (2020), [arXiv:2009.04440 \[cond-mat, physics:quant-ph\]](#) .



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