**Physics** & **Astronomy**

Colloquium

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**Prof. Tamara Bogdanović**

Georgia Tech

**3:30 - 4:30 p.m. | Tuesday, Dec. 3**

**Science Building 234**

**From Kiloparsec Scales to Merger: Properties of Dual AGNs that Become Gravitational Wave Sources.**

Observational searches for dual active galactic nuclei (AGNs) at kiloparsec separations are crucial for understanding the role of galaxy mergers in the evolution of galaxies. In addition, kiloparsec-scale dual AGNs are the parent population of merging massive black hole (MBH) binaries. In this talk, I will describe our recent efforts to quantify the observational properties of dual AGNs that are most likely to result in MBH mergers and the emission of gravitational waves. I will also discuss how dual AGNs can be used to constrain the cosmological MBH coalescence rate and make predictions for the detection rate of the future gravitational wave detector LISA.

**Refreshments at 3 p.m. | SC 103**