

University of Wisconsin-Milwaukee

Dept. of Physics
COLLOQUIUM

*Multi-messenger Astrophysics
from LIGO to Cosmic Explorer*

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3:30 – 4:30 PM

Lapham Hall – Room 160

LIGO's detections of gravitational waves from binary mergers made history and yielded insights into extreme gravity and matter. With more detections, unusual mergers will yield ever more information on new populations. What other gravitational wave signals will be detected, from LIGO to Cosmic Explorer? What physics and astrophysics will we learn from them, especially in tandem with new and planned electromagnetic astronomy facilities?

I summarize some highlights from detections of binary mergers in LIGO data and from current searches for other signals, and sketch the exciting frontiers of what could be learned with future searches ranging from the next year to the era of Cosmic Explorer.