"Probing Dark Matter Throughout Cosmic History" by Vera Gluscevic (USC)

**Date:** Thursday, November 14, 2019 - 4:00pm  
**Series:** Physics and Astronomy Colloquium

Thursdays, 4:00-5:00 pm

1-434 Physics and Astronomy (map)  
**Reception from 3:45-4:00 p.m.**  
(unless otherwise posted)

Guest Speaker: Vera Gluscevic (University of Southern California)

**Talk Title:** “Probing Dark Matter Throughout Cosmic History”

**Abstract:** I will review the status of cosmological searches for dark matter-baryon interactions, summarizing the best current limits on scattering of light particle candidates with protons derived from the cosmic-microwave-background anisotropy measurements. I will then present stringent new bounds on the same physics, inferred recently from the observed population of the Milky Way satellite galaxies. I will highlight complementarities between different observations and laboratory searches for dark matter, and discuss the prospects for unveiling the physics of dark matter in the coming decade.

**For more information, contact** Yaroslav Tserkovnyak

**We thank the following people for their contributions to the wine fund for the post-colloquium reception:**  
Professors Katsushi Arisaka, Andrea Ghez, Karoly Holczer, Huan Huang, HongWen Jiang, Per Kraus, Alexander Kusenko, Matthew Malkan, Mayank Mehta, Warren Mori, Ni Ni, Seth Putterman, Yaroslav Tserkovnyak, Vladimir Vassiliev, Shenshen Wang, and Nathan Whitehorn.

**Location:**  
1-434 PAB