DEPARTMENT OF PHYSICS COLLOQUIUM

Studying Galaxy Formation with Simulated Universes

Dr. Shy Genel
Flatiron Institute, Center for Computational Astrophysics & Columbia University, Columbia Astrophysics Laboratory

IllustrisTNG is the largest cosmological hydrodynamical simulation suite run to date, evolving volumes of up to (300 Megaparsec)^3 from cosmological initial conditions down to the present epoch with over 30 billion particles representing both dark matter and normal matter. I will present a few key results on galaxy formation from these simulations and their predecessor Illustris, touching on how galaxies grow by merging with one another and accreting gas from the cosmic web, as well as on how galaxy size and angular momentum evolve over cosmic times.

TIME: 4:00-5:00 pm, Thursday, February 8, 2018
(refreshments: 3:45 pm in the hallway)

PLACE: Bennhold Auditorium (room 101), Corcoran Hall, GWU
725 21st Street, NW, Washington, DC 20052

METRO STATION: GWU/FOGGY BOTTOM (BLUE, ORANGE & SILVER LINES)