

## Bollettino Settimanale

Lunedì 11 marzo 2024	Martedì 12 marzo 2024	Mercoledì 13 marzo 2024	Giovedì 14 marzo 2024	Venerdì 15 marzo 2024
	<p><b>AULA CONVERSI ore 16.00</b> <b>SEMINARIO GENERALE</b></p> <p><b>Doping and Probing the Original Liquid.</b></p> <p><i>Krishna Rajagopal (MIT)</i></p> <p>Heavy ion collisions reproduce droplets of the trillions-of-degrees-hot liquid that filled the microseconds-old universe, called quark-gluon plasma (QGP). Over the past twenty years, data obtained via recreating this primordial fluid have shown that it is the most liquid liquid in the universe, making it the first complex matter to form as well as the source of all protons and neutrons. After a look at what we have learned about the formation and properties of this original liquid from heavy ion collisions, I will focus on the road ahead. I will frame questions that motivate experimental measurements coming soon, including: How does liquid QGP change as it is doped with an excess of quarks over antiquarks? Is there a critical point in the region of the QCD phase diagram as a function of temperature and doping that heavy ion collisions can explore? How does a strongly coupled liquid emerge, given that what you will see if you can probe QGP with high resolution is weakly coupled quarks and gluons? How can we use jets to see the inner workings of QGP and answer this question?</p>			