

THEORETICAL PHYSICS SEMINAR

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Title: Primordial magnetic field and kinetic theory with Berry curvature

Speaker: Arun Kumar Pandey, THEPH PRL

Date/Time/Venue: 22nd July (Wednesday)/11:00 AM/ Room No. 469

ABSTRACT

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Magnetic fields have been observed not only on small scale but also on large scale of the universe. Depending on the length scale, strength of the magnetic field varies. They play an important role in the formation of astronomical environments like plasma and currents. However it is still not clear from where and how they came into existence. It is usually assumed that the observed magnetic fields were amplified by dynamo mechanism from preexisting seed magnetic fields coherent over scales of the order of 100 Mpc at the time of structure formation. But recent observation suggests that, these seed fields may have generated very early in the universe. In this talk, I shall discuss about generation of Primordial magnetic field using chiral kinetic theory at temperature  $T > 80\text{TeV}$ .

All are welcome to attend