

Blueprints Beyond the Standard Model

5-8 January 2018

TIFR, Mumbai

Organizers

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This mini workshop is dedicated to the topic of building models beyond the Standard Model of particle physics. In keeping with the progress of the experimental program, the need for theorists to convene to interpret the data in the context of what is beyond the Standard Model is paramount. Simple extensions of the Standard Model physics predict new physics to show up at or around the TeV scale. However, aside from a very small number of discrepancies in the data, we have not yet found any new physics “low hanging fruit” in Run-I, or early Run-II data. Direct detection experiments have made spectacular progress in increasing their sensitivity, but have not yet observed an unambiguous signal for WIMPs, the simplest candidate for dark matter. On the other hand, indirect detection is beset with many astrophysical backgrounds and it has proved difficult to extract a (or an unambiguous) dark matter signal so far.

The purpose of this workshop is to bring together a small group of experts in theoretical physics, and to provide a platform where we critically analyze theoretical prejudices as well as chalk out future directions.

theory.tifr.res.in/BSMblues