

PHYSICS **COLLOQUIA** 2015/16

Gli incontri si terranno alle **ore 14:30**
nell'**aula A** del **DIPARTIMENTO DI FISICA**
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Strongly-correlated fermions show remarkable physical properties due to the combination of interactions, statistics and dimensionality. The study of such systems is indeed relevant to both fundamental science and technological applications. I will present results and future perspectives of the experimental work carried out in my laboratory at LENS, cooling binary mixtures of ${}^6\text{Li}$ atoms down to quantum degeneracy. Such atomic systems are particularly interesting due to the exceptional tunability of the interactions between fermions, allowing one to study the crossover from the regime of Bose-Einstein condensate (BEC) of tightly bound molecules to the Bardeen-Cooper-Schrieffer (BCS) state of long-range Cooper pairs.

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ULTRACOLD ATOMS AS TUNABLE INTERACTING FERMI GASES | GIACOMO ROATI



UNIVERSITÀ DEGLI STUDI DI MILANO
DOTTORATO DI RICERCA IN FISICA
ASTROFISICA E FISICA APPLICATA