The Formation and Use of Ultra-cold Molecules

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During the last few years, the interest in producing and manipulating ultracold molecules has led to great achievements ranging from the realization of molecular condensates to Cooper pairs formation. I will give an overview of techniques to produce ultracold molecules, paying special attention to the role of Feshbach resonances. I will then illustrate how polar molecules could be used in quantum information processing.

Friday, April 4th 2008, McCook Auditorium, 3:00 pm, Refreshments 2:45 pm