

Abstract Submitted
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Collision physics and collective phenomena with ultra-cold atoms and molecules EITE TIESINGA, Joint Quantum Institute — I will describe some of our recent results on collision physics and collective phenomena with ultra-cold atoms and molecules. In particular, we have investigated how radio-frequency radiation can induce new or modify existing Feshbach resonances [1], and how ultra-cold polar molecules, such as KRb, can be formed and themselves collide [2]. We have studied collective phenomena of ultra-cold atoms as well. In particular, we have investigated interference patterns generated by atoms suddenly loaded into an optical lattice [3], the effect of rotation on strongly-interacting fermionic atoms [4], and studied the loss of energy in a three-component spinor-condensate [5].

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