

# **Maxwell's Demon: Cooling of Atoms and Efficient Isotope Separation**

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We are developing new approaches to the control of atomic motion, realizing the historic thought experiment of Maxwell's demon, proposed by James Clerk Maxwell in 1871. This toolbox of new methods is an alternative to Laser Cooling, with much better predicted performance in terms of generality, and flux of ultra-cold atoms. These methods also enable efficient isotope separation in a manner that is amenable to scale-up and the production of commercially relevant quantities. This work will be further developed in a non-profit entity, the Pointsman Foundation. Applications include medical imaging, cancer therapy, and energy efficiency.