

## **Taming wild (anti)hydrogen atoms**

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The first cold neutral antimatter (antihydrogen) was made in 2002 at CERN. Much has been learned on both sides, and at times in intimate collaboration ( observations and theory ) about the structure, nature and dynamics of antihydrogen atoms. We know, for instance, that these atoms form via three-body recombination into highly-excited Rydberg states in dilute non-neutral (anti)plasmas, and in the presence of enormous magnetic fields. The ultimate goal is to perform precision comparison of hydrogen and antihydrogen atoms. This means that the antiatoms must be de-excited and trapped. In this talk, I will discuss (in theory) how this goal may be achieved.