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The newest results on antihydrogen from the ALPHA collaboration

Current standard model physics require atoms and antiatoms to have the same energy spectra, but it was only in 2012 that the ALPHA collaboration as the first managed to test this prediction, by measuring a transition in trapped antihydrogen. ALPHA has made great progress since then and published measurements of several line shapes. The challenge with antimatter is of course that it is extremely difficult to handle. The ALPHA collaboration has recently made a breakthrough on a new technique for working with antihydrogen as well as improved on the existing ones. This all brings us closer to our goal of achieving hydrogen like precision for antihydrogen. The newest results on antihydrogen spectroscopy and news on the work in progress of studying the gravitational effect on antimatter will be presented in this talk.

Primary author: Mr GRANUM, Peter (Aarhus University) **Presenter:** Mr GRANUM, Peter (Aarhus University)