

DAMOP08-2008-020115

Abstract for an Invited Paper  
for the DAMOP08 Meeting of  
the American Physical Society

### **Formation and Steps Toward Trapping of Antihydrogen - Results from ALPHA**

NIELS MADSEN, Swansea University, UK

The ALPHA experiment is designed to trap antihydrogen atoms in a magnetic minimum trap configuration. Once trapped, the antihydrogen may be compared with hydrogen for precision tests of the CPT theorem. The antihydrogen is produced by merging plasmas of antiprotons and positrons in a cryogenic Penning trap co-located with the minimum-B trap. In this presentation I will describe the design and operation of the ALPHA apparatus and the most recent results from the ALPHA experiment including the first attempts at trapping antihydrogen.