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New results on the autoresonant-spectrometric study of the vacuum system in ALPHA[1] MARCELO BAQUERO-RUIZ, UC Berkeley, ALPHA COLLABORATION — Studying the residual gas composition in a cryogenic vacuum system is of particular interest to the ALPHA collaboration in our efforts to trap and study antihydrogen. A method based on autoresonant ion extraction from an electrostatic potential well was developed and tested during last year's experimental run in ALPHA, and a first set of results showed the feasability of such an implementation. New experimental data, as well as new computer simulations, have enabled us to have a better understanding of this spectrometric system, and to gain knowledge about the vacuum conditions in our apparatus.

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