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Analysis of the APEX Experiment Data SEAN JEFFAS, University of Virginia, DAVID HAMILTON, University of Glasgow, MARK JONES, Thomas Jefferson National Accelerator Facility, VARDAN KHACHATRYAN, Cornell University, NILANGA LIYANAGE, University of Virginia, JOHN WILLIAMSON, University of Glasgow, BOGDAN WOJTSEKHOWSKI, Thomas Jefferson National Accelerator Facility — The A Prime Experiment (APEX) at Jefferson Lab took data for the search for the dark matter force mediator, A', in the mass range 160-230 MeV decaying to electron-positron pairs with statistics corresponding to the signal sensitivity on the level of coupling constant 10^{-9}. We will present the results on the magnetic optics for accurate reconstruction of the particle momenta for the APEX configuration of the High Resolution Spectrometers (HRS) with a septum magnet. Preliminary results show that angular reconstruction could be accomplished with a precision of 0.5 msr or better.

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