

NIM A274(1989)
37-44

SLAC-PUB-4605
LBL-25136
UM-HE-88-10
April 1988
(I/A)

**A HIGH RESOLUTION WIRE SCANNER FOR
MICRON-SIZE PROFILE MEASUREMENTS AT THE SLC***

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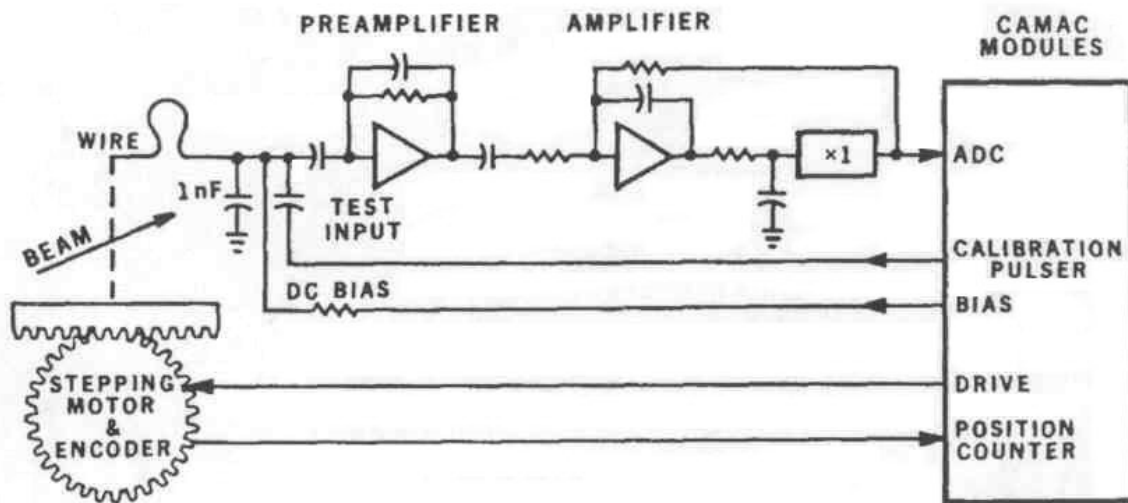
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ABSTRACT

Fine conductive fibers have been used to measure transverse beam dimensions of a few microns at the Stanford Linear Collider (SLC). The beam profile is obtained by scanning a fiber across the beam in steps as small as 1 micron, and recording the secondary emission signal at each step, using a charge sensitive amplifier. We first outline the mechanical construction and the analogue electronics of the wire scanner. We then describe its performance in test beams and in actual operation. The paper closes with a brief discussion of performance limitations of such a beam profile monitor.

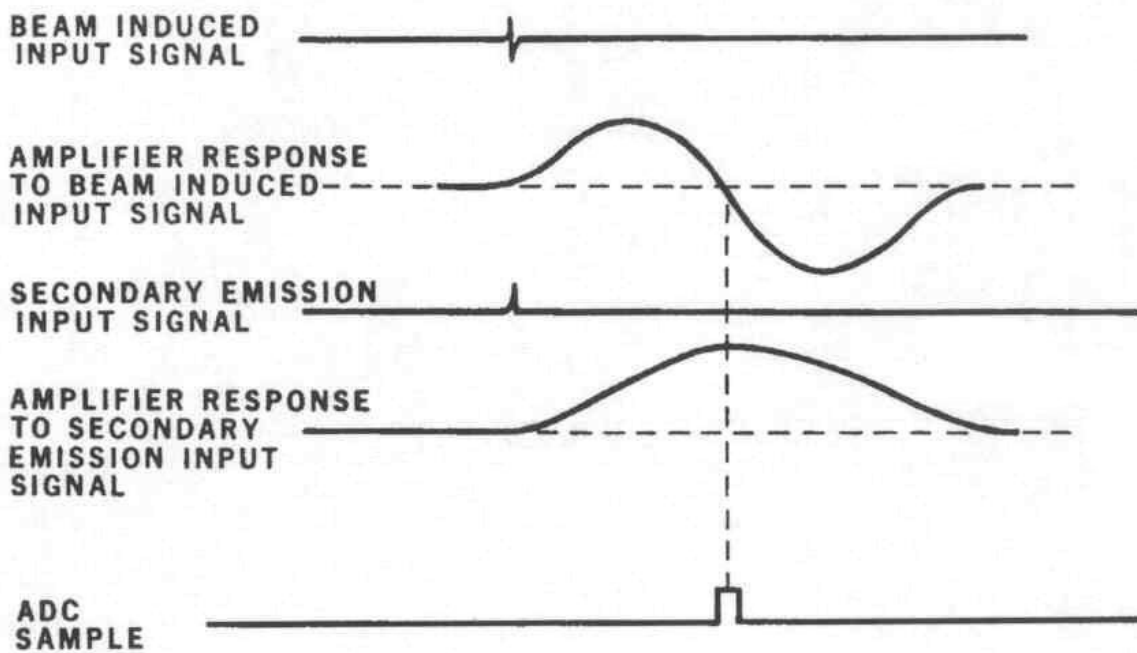
Submitted to Nuclear Instruments and Methods

*Work supported by the Department of Energy, contracts DE-AC03-76SF00515, DE-AC03-76SF00098 and DE-AC02-76ER01112.



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Fig. 5



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Fig. 6