Development of a Track Trigger for H1 using Silicon Pad Detectors

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The Backward Silicon Tracker (BST) is a sub-detector of the H1 experiment at HERA. The main goal of the BST is the precision measurement of deep inelastic scattering. The detector consists of several planes of wedge shaped silicon strip and pad detectors with a 16-fold subdivision in Phi. Strip detectors allow precision tracking independently on the vertex existence while pad detectors allow triggering on backward scattered electrons Completion of the trigger required the development of a new preamplifier microchip with an inherent common mode noise subtraction. The talk describes the new ASIC VA4x8T chip, test measurements and the modified pad BST readout electronics.