FRONTIER DETECTORS FOR FRONTIER PHYSICS



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FE electronics for the Tagger of the BGO-OD experiment

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The BGO-OD experiment, presently under construction at the electron accelerator ELSA at Bonn university, is intended for the systematic investigation of the photo-production of mesons off the nucleon. The experiment will use bremsstrahlung photons from an e- beam incident upon a thin metal radiator. The photon energy will be measured via the deflection of the electrons in the magnetic field of a photon tagger.

The electrons are detected in a 128 channel hodoscope with an expected rate up

to 10MHz per single channel and 50MHz for the total detector. A coincidence between two neighbouring channels is required to suppress background.

Additional to the measurement of the photon energy, time information from the detection of the deflected electrons will be used for coincidence measurements in the BGO-OD experiment.

To match these requirements, a new tagger electronics was developed. The final prototype for the Front-End electronics was designed and tested, the final boards are presently on production. The test results will be presented in this talk.

for the collaboration

BGO-OD

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