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Progress and Physics with planar germanium strip detectors (HpGeDSSDs) C.J. (KIM) LISTER, Physics Division, Argonne National Laboratory — Large area position-sensitive planar germanium wafers potentially offer great promise in many areas of science, including nuclear structure research, medical and material imaging, space science, and homeland security. However, implementation of large, efficient, robust and high resolution counters has proven difficult and progress has been slow. I will report on several projects which have demonstrated the practical applications of these devices, including performing excellent Doppler correction, measuring linear polarizations, and the construction of a digital Compton camera. I will also review the considerable technical improvements being undertaking that will lead to improved devices in the future which will be more useful for widespread use.

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