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## The Challenges and Applications of Sub-Psec Large Area Detectors

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The precision of large-area spatial measurements has improved dramatically over the last 50 years due to the invention of silicon strip and pixel detectors. The precision of large-area time measurements, however, has only recently started to attract a similar level of attention and investment. The ultimate time resolution of large-area devices is not yet known, but the intrinsic resolution of sensors can be much better than the 1-inch resolution typical of large time-of-flight systems. I will discuss the status of the development of large-area micro-channel-plate-based detectors, for which the intrinsic scale that determines the time resolution is 10's of microns. There are challenges, but (so far) it seems no show-stoppers. I will touch on some of the many proposed applications.

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