ATTRACT TWD Symposium: Trends, Wishes and Dreams in Detection and Imaging Technologies



















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Development of large-format IR detectors in Europe

Detectors are a critical component in all astronomical research equipment. Infrared detectors, in particular, have become more and more important for both ground-based and space-based astronomy. Yet the technology, based on hybridized HgCdTe/silicon, remains difficult and highly specialized. Currently, the US dominates world large-format (2kx2k and larger) detector production, with only 1-2 companies able to provide the quality necessary for astronomy. This single supplier problem results in very high prices, and ultimately risks loss of production capability should the manufacturer change its business interests. In addition, military heritage in the technology results in difficulties due to ITAR restrictions, especially for European customers.

Yet Europe has a number of smaller manufacturers who are expert in IR technology for tactical, security, and other applications. In recent years, ESA has provided funding to encourage European development of science-quality devices. The ATTRACT initiative offers a rare opportunity to leverage the further funding required to continue this development and ultimately establish European competition in this area of production.

Summary

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