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Camera technologies overview and Applications in Astronomy imaging

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Andor is a global leader in the development and manufacturing of high performance scientific imaging cameras, spectroscopy solutions and microscopy systems to match your application needs in research and OEM. The presentation will brief introduce camera technologies, including Electron Multiplying CCD (EMCCD) cameras, Scientific CMOS (SCMOS) cameras, CCD cameras and Intensified cameras. We will also provide an overview of the key high-sensitivity, high-temporal-resolution detector technology types, used in astronomy applications such as adaptive optics wavefront sensing, solar exploration, high-time-resolution astrophysics, transit exoplanet discovery, gravitational lensing and even customized guide cameras. Furthermore, we will introduce Andor iKon-XL, the camera uniquely uses patent-pending 'ColdSpace™' technology to thermoelectrically cool a back-illuminated 16.8 Megapixel Very Large Area CCD sensor (e2v) down to -100 °C, circumventing the need for liquid nitrogen or cryo coolers. Extended Dynamic Range technology, facilitates lowest noise and maximum well depth within one scan, complemented by up to 18-bit digitization.

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