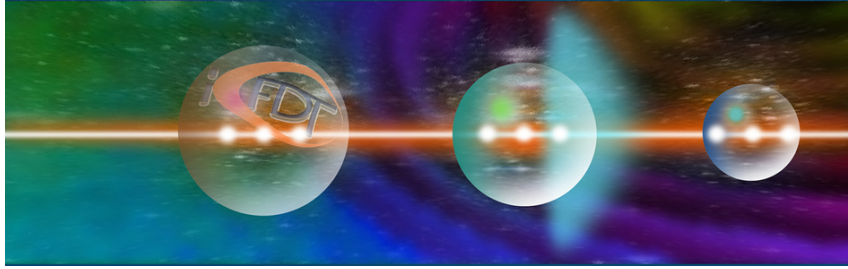


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New MPGD applications

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Born in the late 90's, Micro-Pattern Gaseous Detectors (MPGD) have opened the way for the construction of detectors whose performance surpasses that of the previous generations in terms of spatial resolution, high-rate capability and increased radiation hardness. Micro-Mesh Gaseous Structure (Micromegas) and the Gas Electron Multiplier (GEM), the mostly used MPGD-type, are mature technologies exploited in a variety of experiments at high energy physics. Thanks to their excellent performance and their modularity several application beyond HEP profited from their introduction such as medical imaging, dosimetry and beam diagnostics for high energy beams and for nuclear reactors. Among all the new developments, performance of GEM-based detectors for soft X-ray and fast/thermal neutron detection linked to fusion experiments and spallation neutron sources will be treated in detail underlining the new capabilities of these devices over state of the art.

Summary

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