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## Discharges in Gaseous Detectors: a view from MPGD experience

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The history of gas discharge physics dates back to the early 1800s when V.V. Petrov discovered arc discharge. Since then, the physics of gas discharges is presumably one of the best-studied fields in modern science. Yet, after more than two hundred years of experience, the fundamental questions about discharge phenomena are still vivid, especially within the gaseous particle detector community.

A brief summary of gas discharge physics and its relevance for MPGDs will be given and various discharge phenomena occurring in MPGDs will be discussed. The latter can usually be explained with a streamer model. Various studies point to the conclusion that the primary charge density, arriving at the single amplification cell of an MPGD, is a key factor influencing the stability of the structure against a spark discharge. However, not all discharge events follow this reasoning. An interesting example of a secondary discharge occurring in between subsequent structures in an MPGD stack points to a mixed mechanism of a slow and fast discharge and is still a topic of debate.

The overview of recent results will be complemented with the most common mitigation strategies, new ideas, and possible ways towards the development of a spark-less MPGD structure.

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