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## **[342] Simulations and Background predictions for DARWIN**

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DARK matter WImp search with liquid xenon (DARWIN) will be an experiment for direct detection of dark matter using a multi-ton time projection chamber filled with xenon at its core. As a detector searching for rare events, a extremely good understanding of the all possible backgrounds is required, as well as a detailed simulation of all of them to quantify /estimate the expected background levels in the detector. Simulations will be also needed to determine the optimal dimensions of the detector. We discuss here the most important backgrounds for DARWIN and the first simulations of the detector geometry which are being conducted.

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