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# Modelling of electromagnetic backgrounds in the CRESST experiment

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CRESST searches directly for dark matter (DM) with $CaWO_4$ crystals operated as cryogenic calorimeters. It established leading limits for the spin-independent DM-nucleon scattering cross-section down to DM-particle masses of $350\,\mathrm{MeV}/c^2$. At this mass regime, the rejection power against electromagnetic background starts to degrade.

The background in the region of interest is mainly caused by beta and gamma decays of radioactive contaminations in the $CaWO_4$ crystals and their Cu surrounding. To gain a reliable understanding of these background components a detailed Geant4 model of the contaminations is under development.

With this contribution we report the current status of the simulation used to validate the model. We discuss the absolute normalization of the simulation via sideband measurements of alpha decays. Finally, we show a preliminary comparison with experimental reference data.

I am also submitting an abstract to the track Direct Detection.

**Authors:**  Dr KLUCK, Holger (HEPHY & TU Wien);  TÜRKOĞLU, Cenk (HEPHY & TU Wien)

**Presenter:**  Dr KLUCK, Holger (HEPHY & TU Wien)

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