IMPROVING THE BACKGROUND MODEL OF CRESST TO IDENTIFY RADIOACTIVE CONTAMINATION

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- CRESST is a direct detection dark matter experiment with world-leading sensitivity in the sub-GeV/c^2 mass range

- Reliable background studies are important for identifying electromagnetic contributions at the lowest energies (positive signal analysis, R&D)

- Geant4 to simulate radiogenic and cosmogenic contributions in many detector parts (226 spectral templates)

- Improved background model

  - Using a Bayesian likelihood fit to scale templates

  - Coverage in the ROI: 73.9% → 87.8%