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# Vetoing the high energy showers in the GRAPES-3 experiment whose cores lie outside the array

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The GRAPES-3 experiment located at Ooty, India, consists of an array of 400 plastic scintillators which records the particle densities and relative arrival times of secondaries in an air shower. The particle densities recorded in individual detectors are then fitted by the well known NKG function to obtain the shower parameters, namely the shower core, age and size. High energy showers with cores simulated using CORSIKA with true cores far away from the array center are also capable of triggering the array. Some of those showers are mis-reconstructed such that the cores appear to lie within the array, leading to contamination which can affect the measurement of the energy spectrum of cosmic rays. To reduce this contamination, we have devised a selection technique employing several shower properties, the details of which will be presented here.

## Keywords

Shower core; GRAPES; EAS;

## Collaboration

other (fill field below)

## other Collaboration

GRAPES-3

## Subcategory

Experimental Results

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