

## Workshop on a wide field-of-view Southern Hemisphere TeV gamma ray observatory

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# Fundamental drivers for the design of a ground-particle based gamma ray observatory

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Air shower detectors at high altitude sites are suitable for gamma ray observation of the sky in the TeV energy range. The efficiency and accuracy with which these observations can be made depend on several key design parameters for such an observatory. By using CORSIKA simulations, we studied the performance of such an observatory as a function of few key design parameters, like altitude, instrumented area, fill factor, and detector unit properties. The results from this study can be used in the decision making and design a next generation wide field-of-view gamma ray observatory.

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