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## Framework for performance forecasting and optimization of CMB B-mode observations in presence of astrophysical foregrounds

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We derived a semi-analytic formalism for performance forecasting and optimization for future CMB experiments. The formalism accounts for statistical uncertainties due to the CMB sky statistics as well as presence of the foreground signals. We model the effects of subtraction of these using parametric maximum likelihood technique.

As an illustration of this formalism, we performed in this work both performance forecasting and optimization of future satellite CMB B-mode observations.

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