

## De-lensing the CMB to constrain primordial gravitational waves from the South Pole

*mercredi 29 octobre 2025 09:00 (40 minutes)*

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Gravitational lensing of the CMB is both an interesting probe of large-scale structures in our Universe, as well as an hindrance to constraints on a background of primordial gravitational waves from inflation.

I'll start reviewing recent results on CMB lensing, and proceed to discuss prospects on the tensor-to-scalar ratio. In particular, SPT-3G and BICEP (SPO) have collected now enough data to achieve, in principle, 3 times better constraints on  $r$  than currently published ( $\sigma(r) \sim 0.003$  vs  $0.009$  now)), thanks to de-lensing. I'll discuss initial lensing work on these extremely deep maps towards this objective.

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