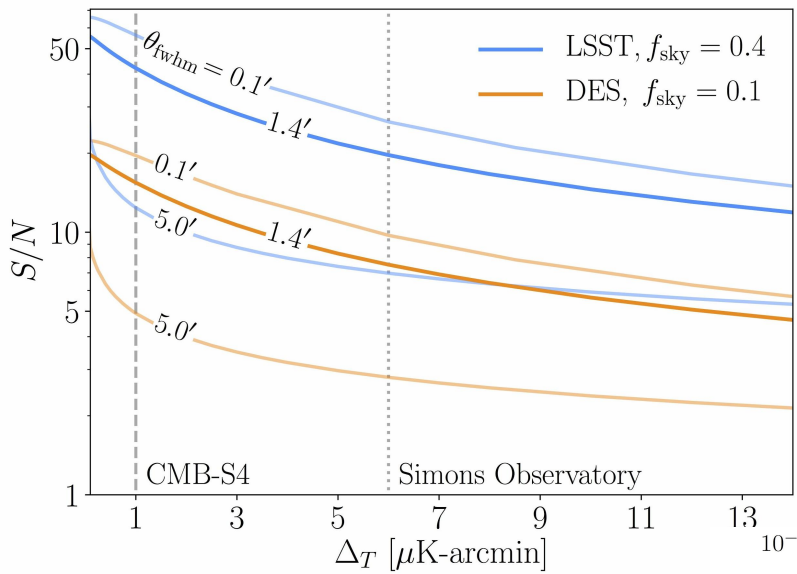


# CMB-S4 will detect the **moving lens effect!**

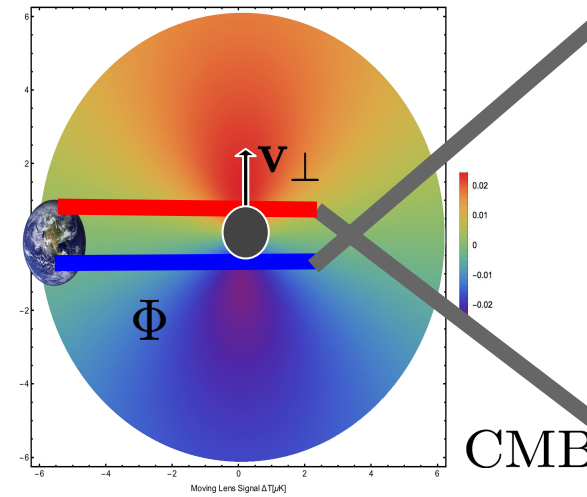


$$\frac{\Delta T(\hat{n})}{T_{\text{CMB}}} = \mathbf{v}_{\perp} \cdot \nabla \psi$$

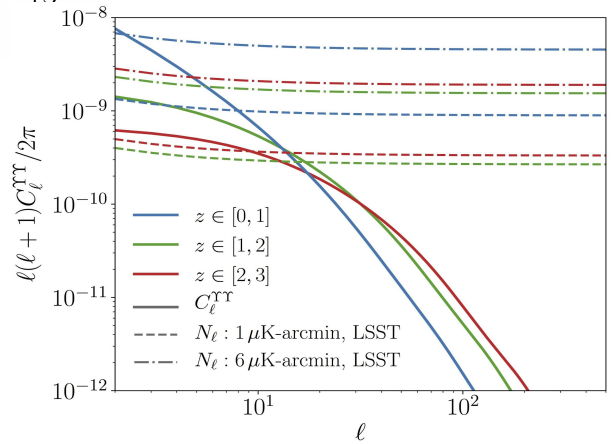
PRL : [1812.03167\\*](#)

TO HIGH PRECISION

Moving lens signal (in  $\mu\text{K-arcmin}$ )



*\*(with Meyers, Dalal, Jaffe, Johnson, Mertens, Munchmeyer, Smith, van Engelen)*



**Ideas** for cosmology from *transverse velocities?*

**SELIM C. HOTINLI**

Happy to talk!