

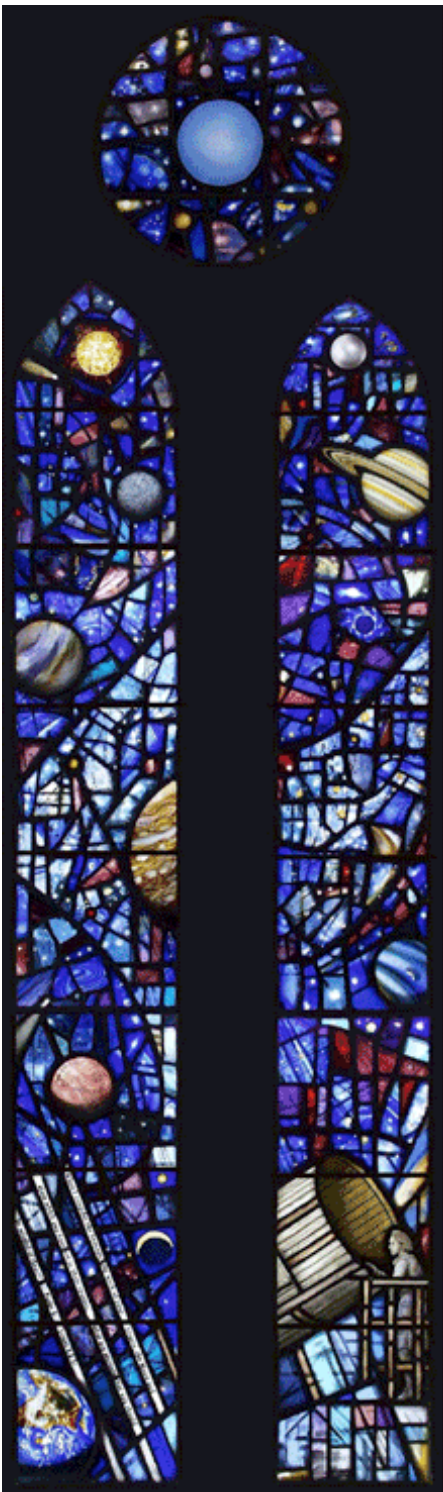
Forecasts for Extended Dark Matter & Dark Energy Models with the Next Generation of Redshift Surveys

Edward Macaulay

edward.macaulay@astro.ox.ac.uk

David Marsh, Maxime Trebitsch, Pedro Ferreira, Tessa Baker, Gavin Dalton

ArXiv: 1110.0502



What can we do with the Next Generation of Redshift Surveys?

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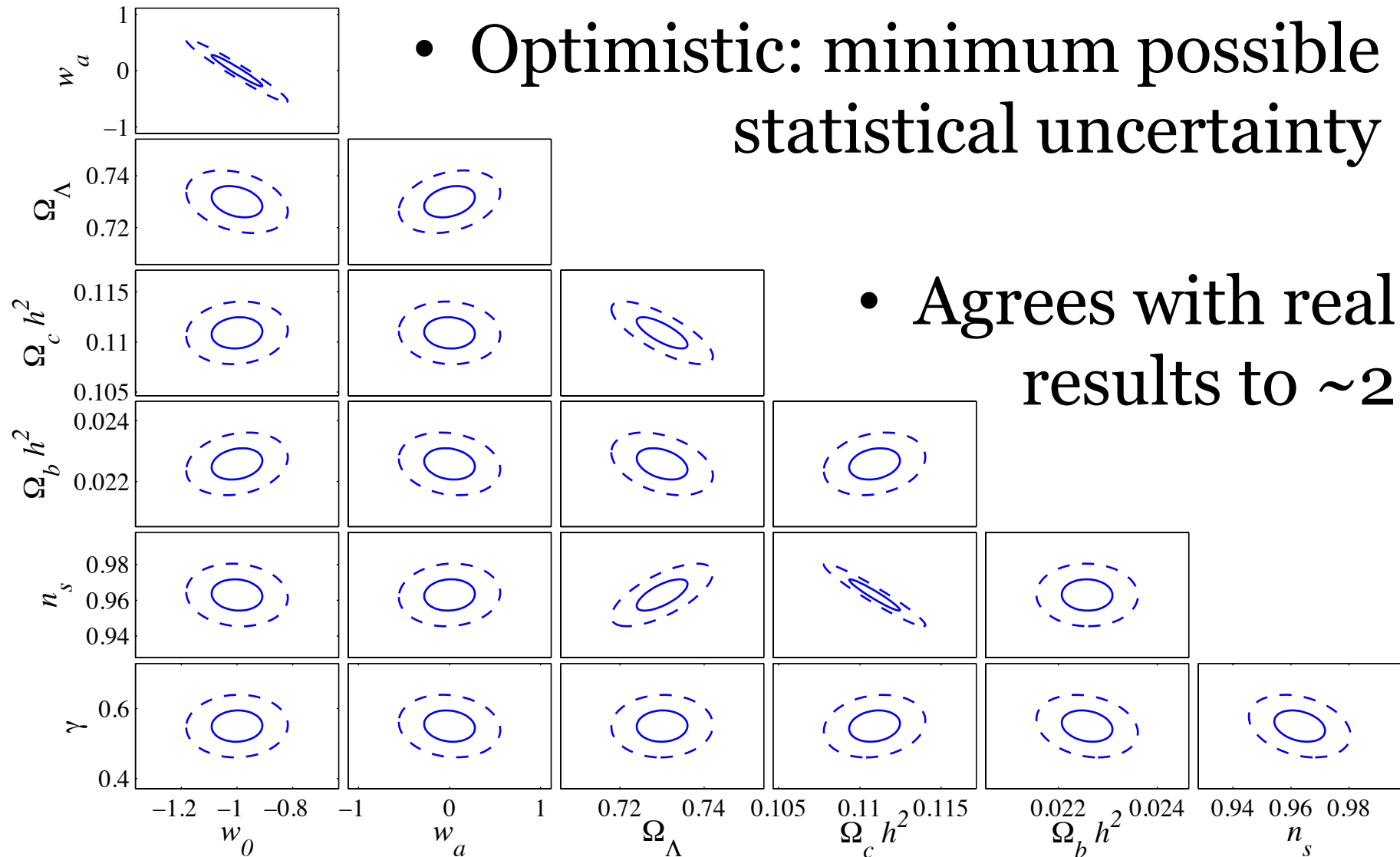


Motivation

- The dark universe: Ω_m , Ω_Λ and w measured to increasingly higher precision, but:
- What does Ω_m consist of?
- Is General Relativity+ Ω_Λ a complete description of dark energy?
- What can upcoming redshift surveys tell us?

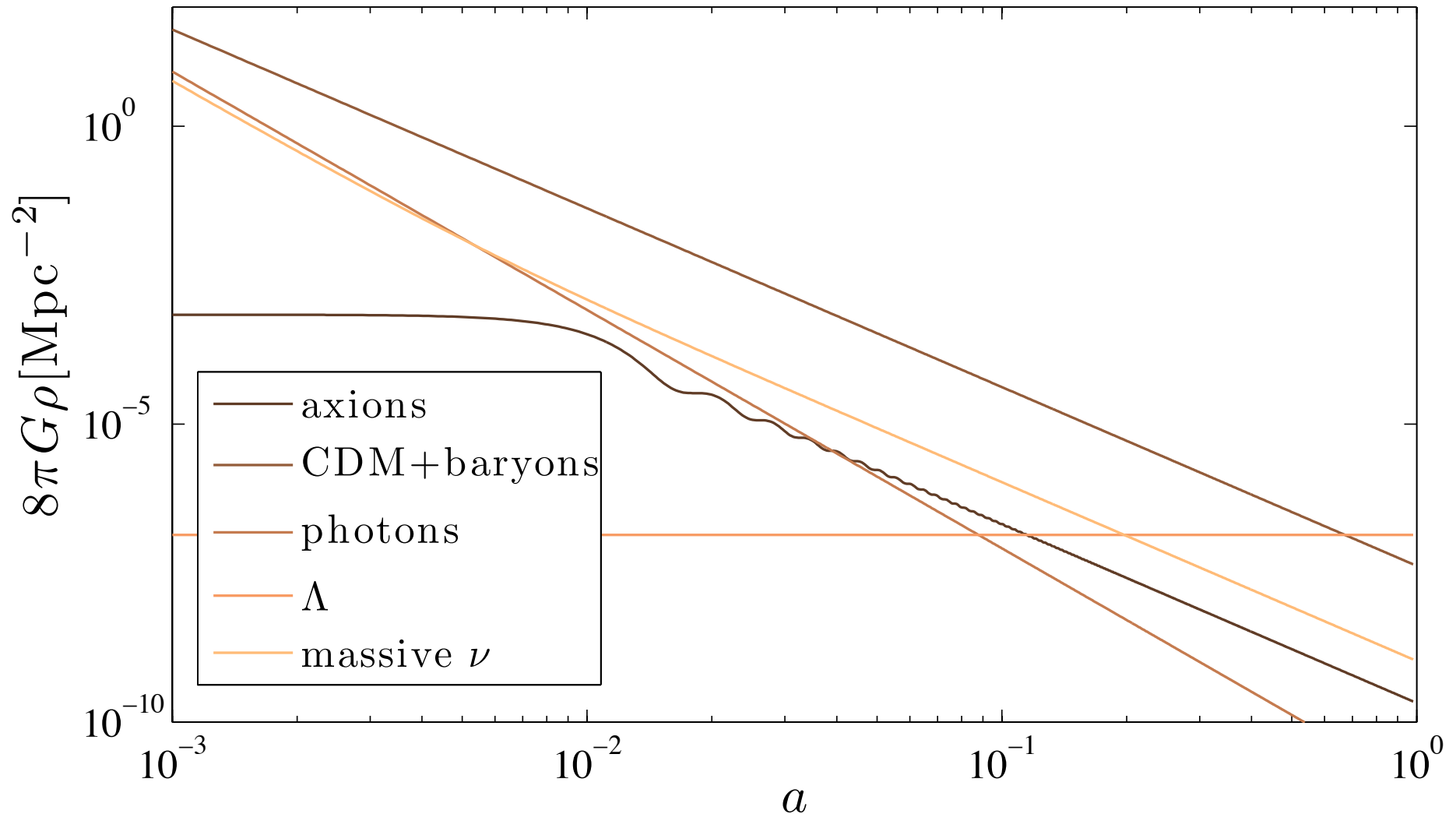


Fisher Forecasts



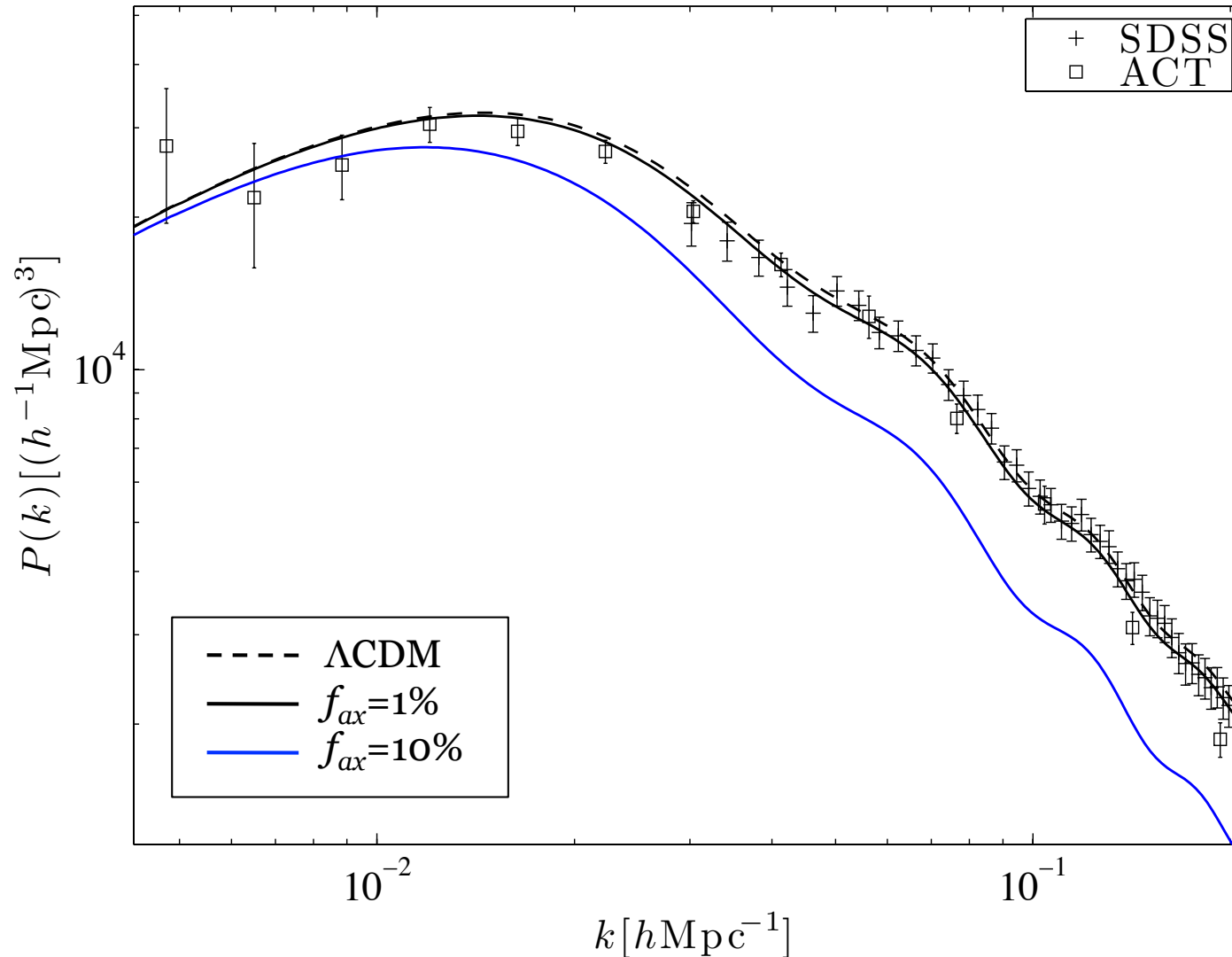


Axion Dark Matter



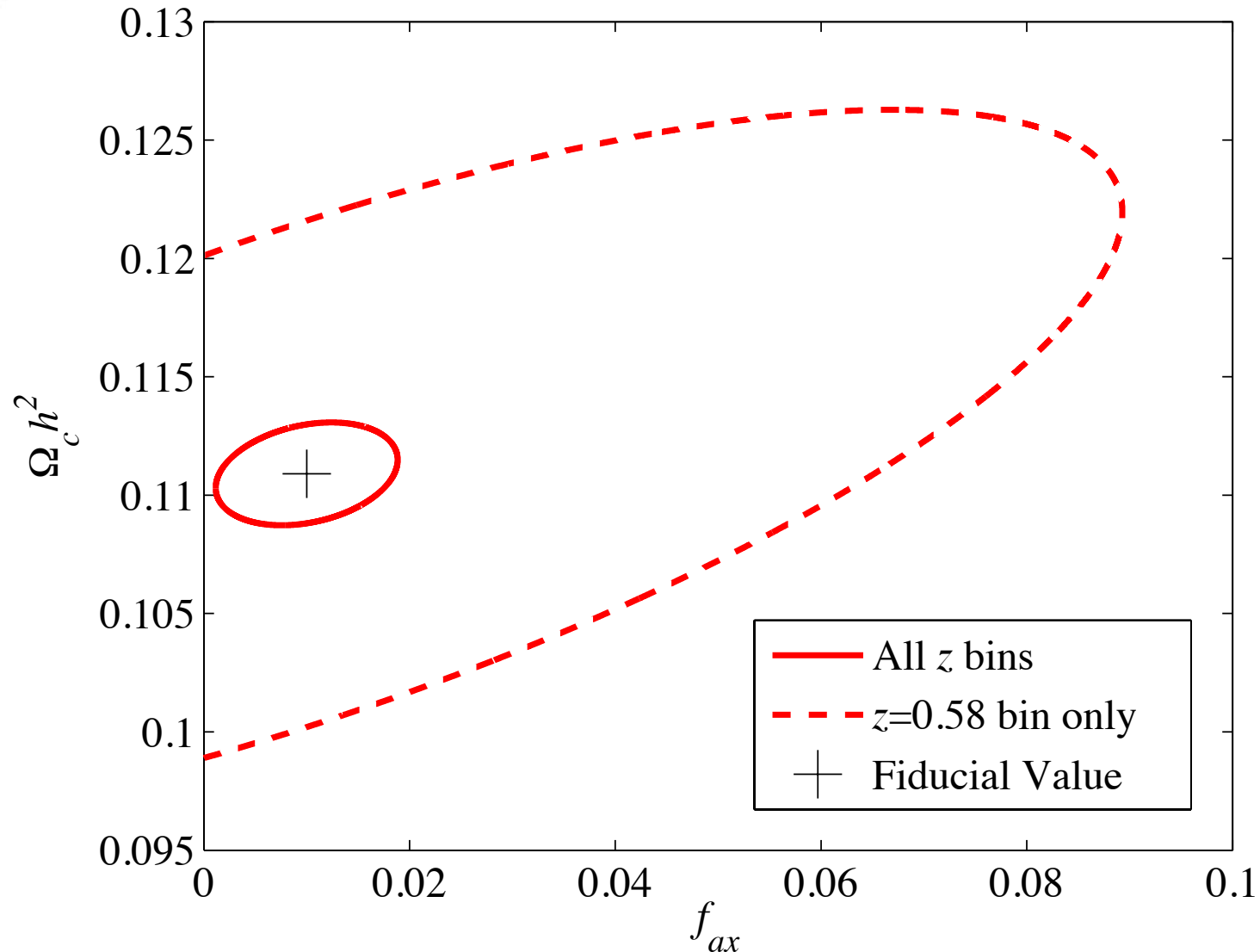


Axion Dark Matter



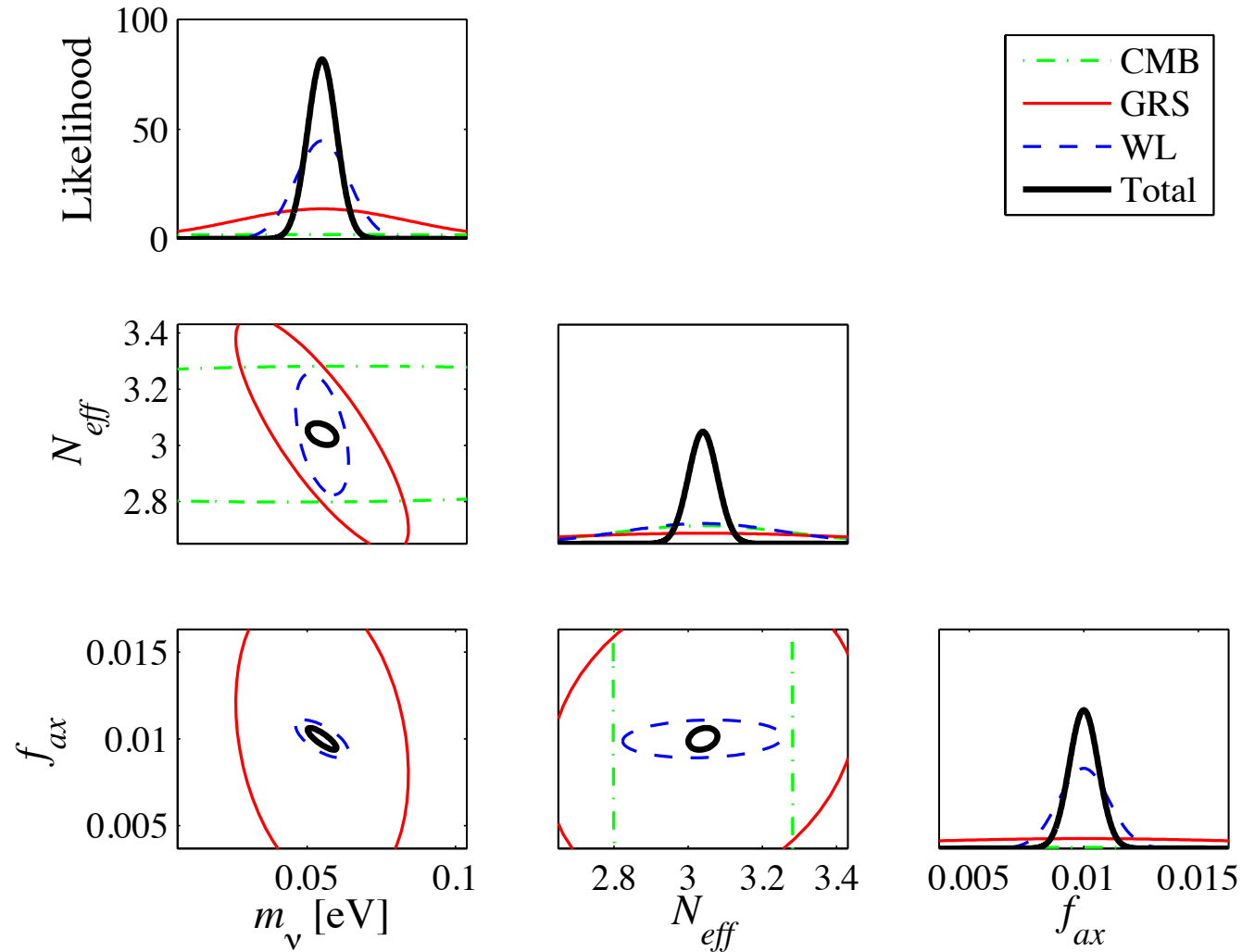


Forecast Measurements





Forecast Measurements





Does $GR + \Omega_\Lambda = \text{Dark Energy}$?

- Effect Newton's Constant:

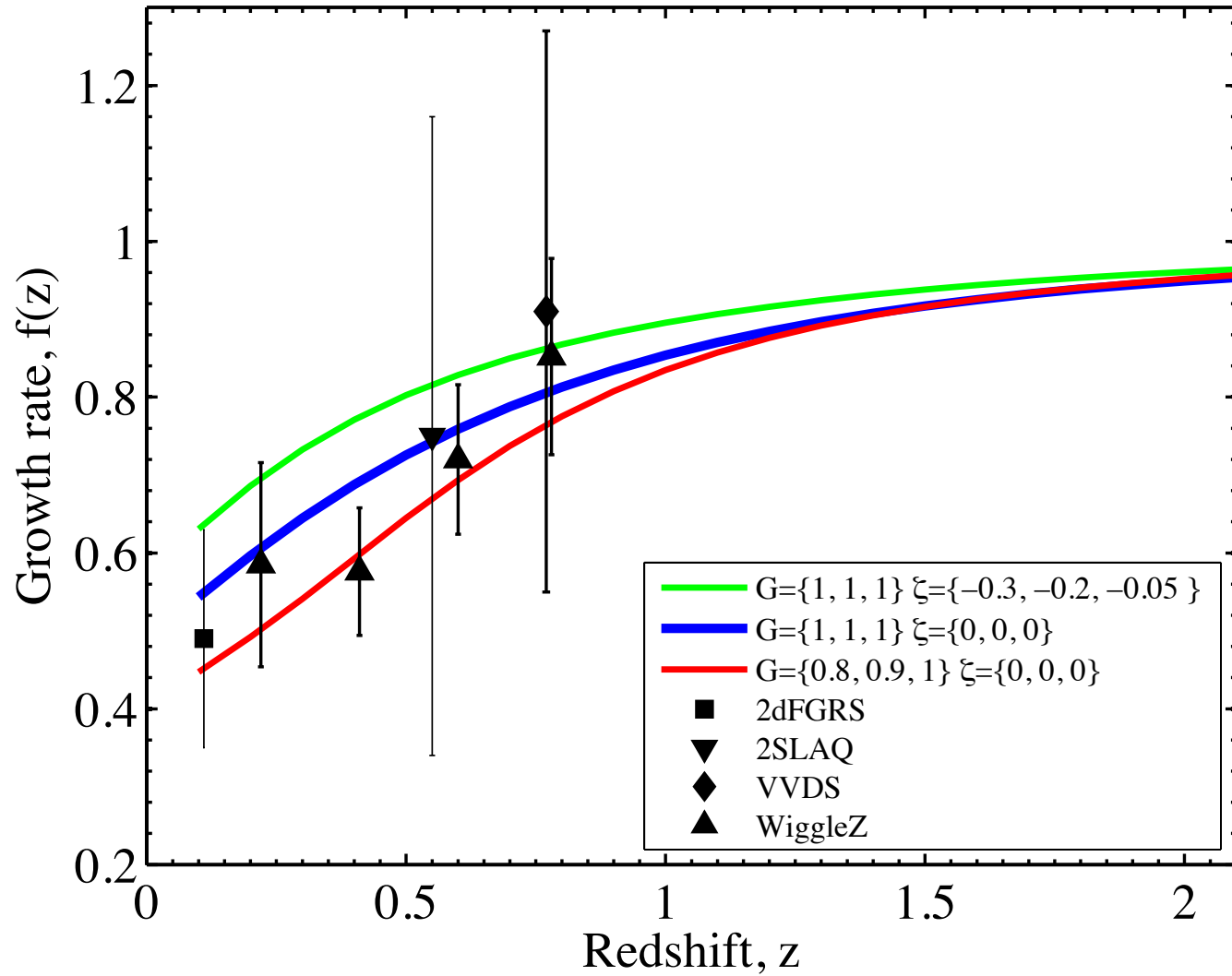
$$G_{eff}(z) = G_N \mu(z)$$

- Gravitational slip:

$$\Psi - \Phi = \zeta(z)$$

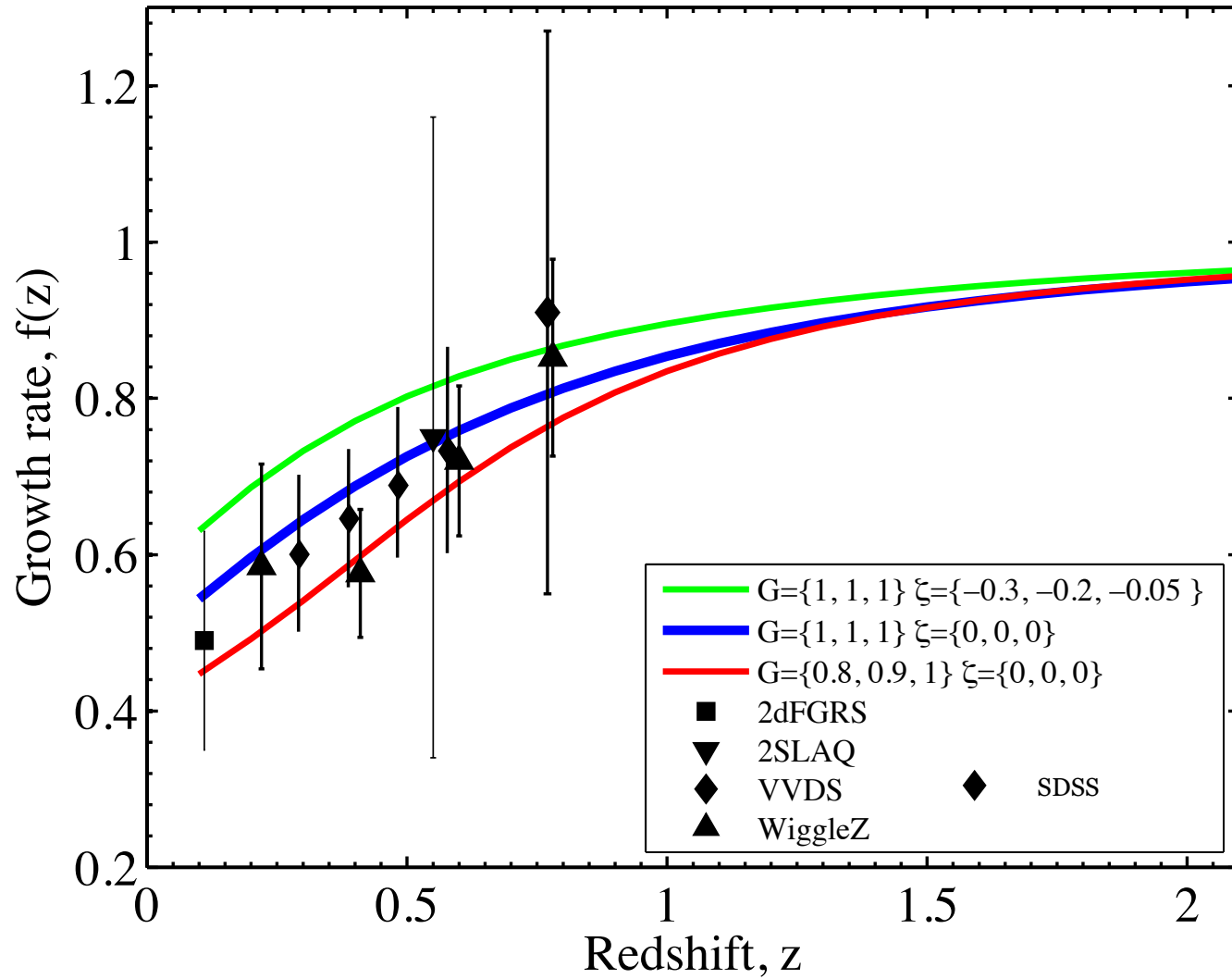


Does GR+ Ω_Λ =Dark Energy?



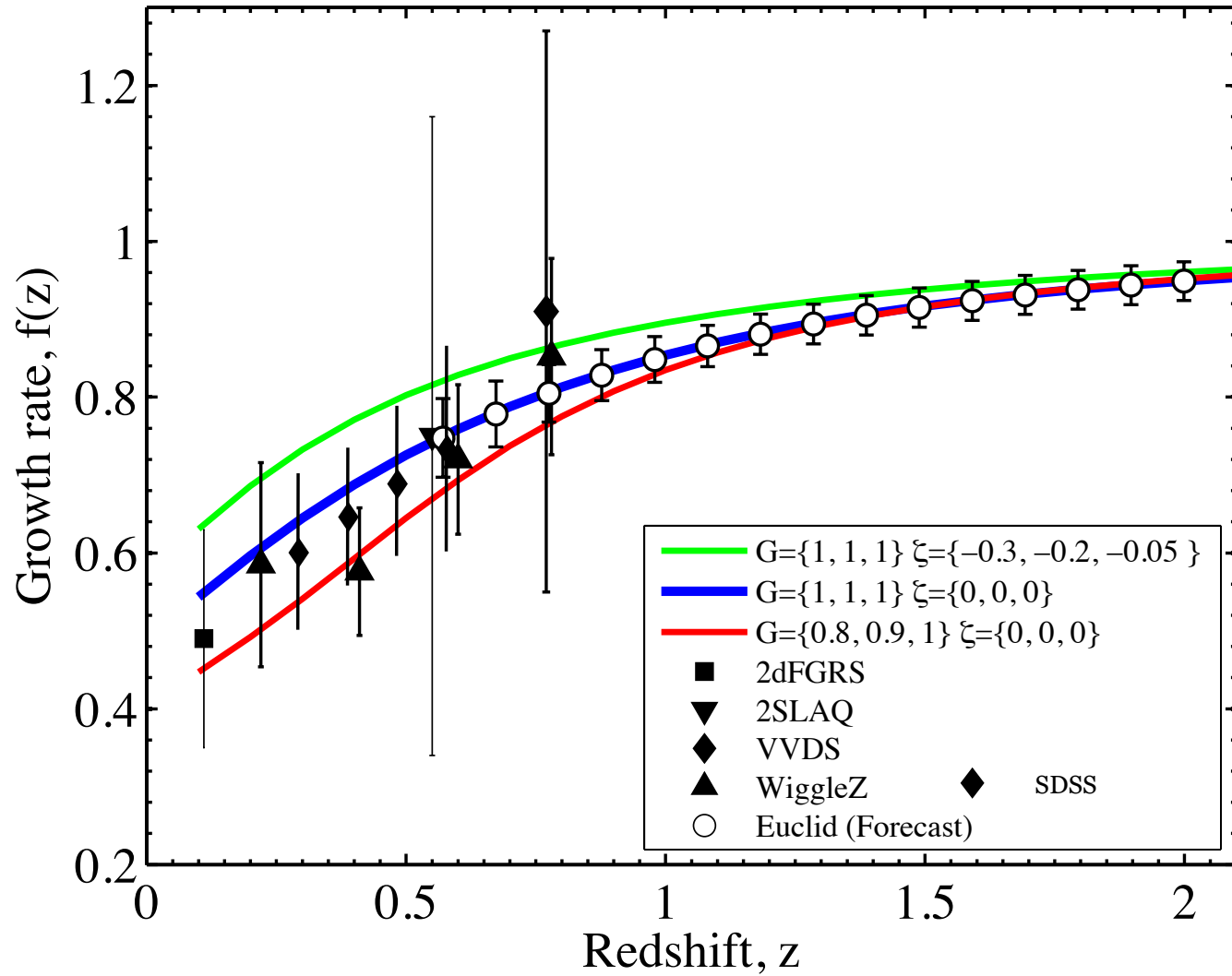


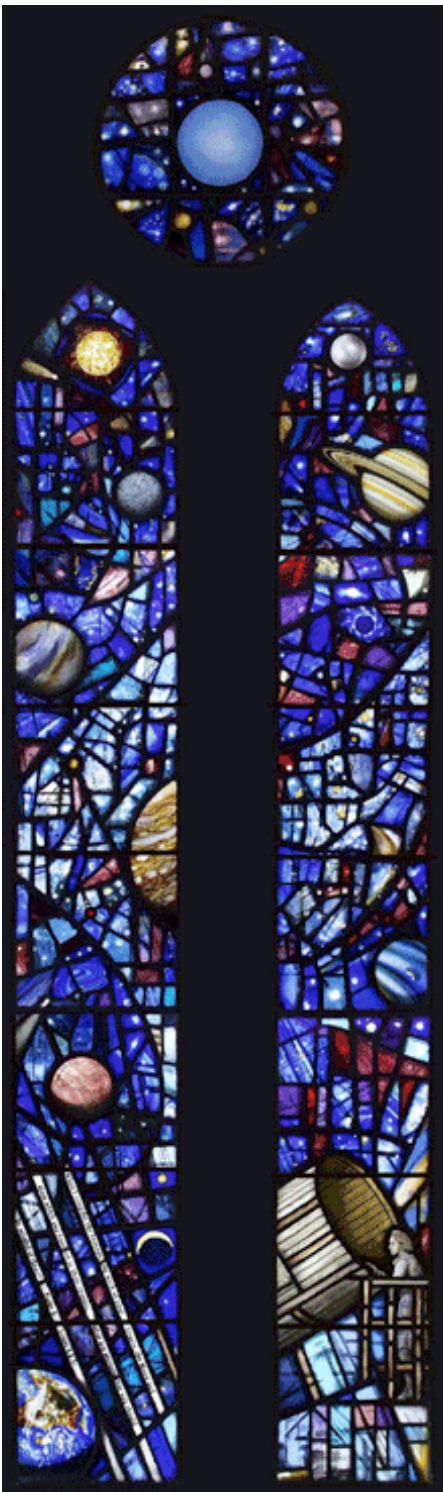
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Does GR+ Ω_Λ =Dark Energy?





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