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# Adapting data survey analyses to beyond LambdaCDM cosmological models

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Large carried out, ongoing and future surveys such as Planck, Euclid, DES, DESI, Rubin, ACT, SPT, S4, are all designed to determine the cosmological parameters defined in the framework of the standard LambdaCDM model of Universe. Now, it is becoming widely acknowledged that this model suffers tensions and anomalies which suggest that LambdaCDM is not the last word in cosmology. In a recent work, we have proposed to use the Szekeres inhomogeneous solution of General Relativity to represent the late lumpy universe while keeping FLRW-like spacetimes to model its early region. This new cosmological model will have to be constrained by the data obtained by the same large surveys, but the parameters will be different. Therefore, the analyses to be performed will have to be adapted to the new model. We are aware of the huge amount of work that this implies, but, in the era of precision cosmology and with the help of neural networks, such a task has to be seriously considered. We will sketch out here possible ways to complete it.

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