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Inhomogeneous conformally flat models of the universe

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I will discuss the benefits of the conformally flat inhomogeneous pressure models of the universe. Then, I will present the results of checking these models against supernovae data for off-centers observers and against other data (BAO, CMB) for the centrally-placed observers. I will also comment on the possible advantage of these models in view of the recently given Green and Wald conditions for backreaction to mimic dark energy.

- A. Balcerzak, M.P. Dąbrowski, and T. Denkiewicz, Off-center observers versus supernovae in inhomogeneous pressure universes, Astroph. Journ. 792, 92-99 (2014).
- 2. A. Balcerzak, M.P. Dąbrowski, T. Denkiewicz, D. Polarski, D. Puy, A critical assessment of some inhomogeneous pressure Stephani models, Phys. Rev. D91, 083506 (2015).
- 3. A. Balcerzak, M.P. Dąbrowski in progress.

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