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## Variable \$G\$ Correction for Dark Energy Model in Higher Dimensional Cosmology

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In this work, we have considered \$N (=4+d)\$-dimensional Einstein field equations in which 4-dimensional space-time which is described by a FRW metric and that of the extra \$d\$-dimensions by an Euclidean metric. We have calculated the corrections to statefinder parameters due to variable gravitational constant \$G\$ in higher dimensional Cosmology. We have considered two special cases whether dark energy and dark matter interact or not. In a universe where gravitational constant is dynamic, the variable \$G\$correction to statefinder parameters is inevitable. The statefinder parameters are also obtained for generalized Chaplygin gas in the effect of the variation of \$G\$ correction.

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