

Square-root parametrization of dark energy in $f(Q)$ cosmology		
Authors	M Koussour, N Myrzakulov, Alnadhief H A Alfedeel, E I Hassan, D Sofuoğlu, Safa M Mirgani	
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<b>Abstract:</b> This paper presents a parameterization of the dark energy (DE) equation of state (EoS) using a square-root form with parameters $\omega_0$ and $\omega_1$ . The study explores this parameterization within the framework of the $f(Q)$ gravity theory, an alternative to general relativity, where gravitational effects are governed by the non-metricity scalar $Q$ with the functional form $f(Q) = Q + \alpha Q^n$ where $\alpha$ and $n$ are constants. Observational constraints on the model parameters are derived using the Hubble dataset (31 points) and the Pantheon supernovae dataset (1048 points). The analysis reveals that the deceleration parameter supports the current accelerated expansion of the universe, and the DE EoS parameter indicates a quintessence-like nature.		