Study of the generalized Starobinsky inflationary model

We study one kind of generalization of the Starobinsky inflationary model (power-law type), which is characterized by the parameter $p$. In order to find the parameter $p$ that is fixed with observations, we compute the cosmological parameters $A_S$, $n_S$, and $r$ for several values of $p \approx 1$. We have found that the value of $p=1.0004$ reproduces the value of the cosmological parameters in agreement with current observational data.