Gravitational models with a nonlocal scalar field

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Gravitational models with a nonlocal scalar field are considered. We study the action with a linear or quadratic potential and a nonlocal "kinetic" term $\phi F(\Box)\phi$, where $F(\Box)$ is an arbitrary analytic function, $\Box$ is the Beltrami-Laplace operator in the corresponding metric. Similar actions, which have the nonlocal operator $\exp(\Box)$ as a key ingredient, describe the string field theory inspired cosmological models. The way to find particular solutions for nonlocal Einstein equations in the case when $F(\Box)$ has both simple and double roots has been proposed. One and the same functions solve the initial nonlocal Einstein equations and the obtained local Einstein equations.