

# Cosmological Dynamics of Multi-field Mimetic Gravity

## **Abstract:**

In order to study the cosmic evolution of the multi-field mimetic gravity model, we have investigated its dynamical behavior by considering some assumptions for interacting and non-interacting potential of the scalar field in this theory. Using the phase space analysis and checking the stability of the critical points, we have shown that this model describes the thermal history of the Universe correctly. This means that this theory has a standard sequence of the radiation dominant, matter dominant and dark energy dominant eras. Furthermore, we have shown that at the late times, this theory tends to a de Sitter solution or a scaling accelerated attractor, where the values of the dark matter and dark energy density parameters have the same order of magnitude. This has improved the cosmic coincidence problem.