ABSTRACT

In this research communication, Current study is conducted for stagnation point flow of Carreau fluid with fractional nanofluid model over a stretching/shrinking surface. Both similarity variables and nondimensional quantities are employed to simplify the ruling nonlinear partial differential equations to set of nonlinear ordinary differential equations. The transformed set of new equations are numerically solved with the help of Runge-Kutta Fehlberg method along with bvp4c. The dual solutions are also computed which elaborate the Skin fraction, Nusselt number and Sherwood number and stress model number and its they're first and second solutions. Moreover, the influence of fractional order parameter on the profiles of velocity, temperature and concentration are also studied via graphical illustrations.