

1086-VG-771

**Abbas Syed\*** ([sabbas.iitk@gmail.com](mailto:sabbas.iitk@gmail.com)), Assistant Professor, School of Basic Sciences, IIT Mandi, H.P., Mandi, 175001, India, and **Lakshman Mahto**. *Fractional model of phytoplankton allelopathy.*

In this work, we investigate the fractional model of two interacting phytoplankton species in which one species is producing a chemical which stimulate or reduce the growth of other species. I will use the concept of Caputo's fractional derivative. After establish existence, uniqueness and stability analysis, we do numerical simulation too to validate our analytical finding. (Received September 12, 2012)