

عنوان مقاله:

†On the stabilization of a coupled fractional ordinary and partial differential equations

محل انتشار:

مجله ایرانی آنالیز عددی و بهینه سازی، دوره 10، شماره 1 (سال: 1399)

تعداد صفحات اصل مقاله: 17

نویسندگان:

Shadi Amiri - *Department of Applied Mathematics, Faculty of Mathematical Sciences, University of Guilan, Rasht, Iran*

Mohammad Keyanpour - *Faculty of Mathematical Sciences, and Center of Excellence for Mathematical Modelling, Optimization and Combinational Computing (MMOCC), University of Guilan, Rasht, Iran*

خلاصه مقاله:

We investigate the stabilization problem of a cascade of a fractional ordinary differential equation (FODE) and a fractional diffusion (FD) equation, where the interconnections are of Neumann type. We exploit the PDE backstepping method as a powerful tool for designing a controller to show the Mittag–Leffler stability of the FD-FODE cascade. Finally, numerical simulations are presented to verify the results

کلمات کلیدی:

Backstepping, Stability, Fractional-order cascaded systems

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1170446>

