

# On Hybrid Problems with hybrid boundary value problems

Shahram Rezapour

Department of Mathematics, Azarbaijan Shahid Madani University,  
Tabriz, Iran

email: rezapourshahram@yahoo.ca

By using hybrid problems, we can provide considerable extensions for different types of known problems. In this talk, we extend the second-order differential equation of thermostat model to the fractional hybrid equation and inclusion versions. We consider boundary value conditions of the problems in the form of hybrid conditions. Finally, we give two examples to illustrate our main results.

**MSC 2010:** 34A08; 34A12.

**Keywords:** Caputo fractional derivative; Hybrid fractional differential equation and inclusion; thermostat modeling.