## Lagrangain formulation of fractional field systems

Sami I. Muslih
Department of Physics
Al-Azhar University-Gaza, Palestine
smuslih@ictp.it

## Abstract:

This paper presents a Lagrangian formulation of fractional field systems. We extend the variational formulations for fractional discrete systems to fractional field systems defined in terms of Caputo derivatives to obtain the fractional Euler-Lagrange equations of motion. Two examples are studied.