

CMM PDE Seminar

Speaker: **Márcio Melo**, Universidade Federal de Alagoas, Brasil

Title: "**The Korteweg-de Vries on the general star graphs**"

Abstract: In this talk, we discuss local well-posedness for the Cauchy problem associated with the Korteweg-de Vries (KdV) equation on a general metric star graph. The graph comprises $(m+k)$ semi-infinite edges: k negative half-lines and m positive half-lines, all joined at a common vertex. The choice of boundary conditions is compatible with the conditions determined by the semigroup theory. The crucial point in this work is to obtain the integral formula using the forcing operator method. This work extends the previous results obtained by [2018 Cavalcante] for the specific case of the Y junction to a more general class of star graphs.

It is a joint work with J. Marques Neto.

The talk will be held in person

Venue: DIM seminar room, Beauchef 851, 5th floor.

Zoom:

<https://uchile.zoom.us/j/93613339766?pwd=vB3J7Vhb0EX3kQDHfH741CKN19YKQz.1>

Wednesday, Monday, June 23rd at 12:10 pm.

For further information, see our webpage: <https://eventos.cmm.uchile.cl/pdeseminar/>