

# POSITIVITY PROPERTIES OF A HIGHER ORDER PARABOLIC EQUATION

VANDERLEY FERREIRA JUNIOR \*

We discuss weak positivity properties of solutions of the initial value problem in  $R^n$  for the homogeneous parabolic equation of real order  $\alpha > 0$ ,

$$\begin{cases} u_t + (-\Delta)^\alpha u = 0, \\ u(x, 0) = u_0(x). \end{cases} \quad (0.1)$$

Our results regard eventual local positivity of solutions with nonnegative, compactly supported initial data.

Joint work with Lucas Catão de Freitas Ferreira (IMECC – Unicamp).