Keynote n°13 : Fahd KARAMI
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Title: **Study of some nonlinear and nonlocal reaction-diffusion system and application for image restoration.**

In this work, we will present a class of nonlocal reaction-diffusion systems applied to the restoration of degraded images. These models are obtained by decomposing the image into a cartoon part and a texture part.

We use a nonlinear regularization of the operator 1- Laplacian, the latter will be coupled with a non-local Fractional distribution. We study the well-posed nature of the proposed system and will also present numerical simulations.

joint work with A. Atlas O.Oubbih et D. Meskine