



## **Seminário (Presencial/Online)**

### **CIMA/DMAT/UÉ**

**Universidade de Évora**

**Colégio Luís António Verney, Anfiteatro nº1, 15h, 5 de Maio de 2022**

Link:

<https://videoconf-colibri.zoom.us/j/82825276842?pwd=bVhZZEdKcHZUM0hCY2hyOWltNDNGZz09>

ID da reunião: 828 2527 6842

Senha de acesso: 359323

#### **Krylov-based Methods for Image and Video Processing**

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#### **Abstract**

Processing types of data like noise, images and videos, which are raw data collected from technological or medical devices, is a challenge since numerical representation of them are very large datasets. Subtracting valuable information for surveillance, detection or biomedical purposes, consists in a preprocessing phase of the original dataset that includes reducing the number of variables without losing any important

information or properties. Once the dimensionally reduction techniques are applied, more complex strategies and methods can be used to further process the data. Background subtraction techniques are necessary to separate moving objects from the steady ones, using a reference background frame. The presentation describes a collection of popular and effective methods used in image/video processing, particularly for background estimation. It highlights advantages, limitations, modifications and efficiency, starting from the standard approach (PCA) up to innovative methods using Krylov subspaces, associated with background estimation experiments.