

**Disciplina:** DATA PROCESSING IN ASTRONOMY

**Código:** AST-E08

**Tipo:** Eventual

**Créditos:** 02

**Programa:**

One-dimensional data processing: Fourier series, multi resolution analysis, filtering, denoising.

Image processing: single scaled transforms, multiscaled transforms, analytical detection of structures (wavelets, ridgelets, curvelets), filtering, denoising, fitting algorithms.

Practice for Astrophysics: Wavelab, GALFIT, shapelets, CHEFs (including Python notions).

**Bibliografia:**

Astronomical image and data analysis - STARCK, J.-L; MURTAGH, Fionn.

Image processing and data analysis: the multiscale approach - STARCK, J.-L; MURTAGH, Fionn; BIJAOU, A.

A wavelet tour of signal processing.- MALLAT, S. G.