PIV Method Implementation Code

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Class displacement_map

dpx: 2d np.narray
dpy: 2d np.narray

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neighborhood_median(int i, int j)
calculate_rm (int i, int j)
calculate_r (int i, int j)
neighborhood_mean (int i, int j)
replacement3 ()
correct_previous_dp ()
resize_dp()
index_guard()

Class image_par

image1: 2d np.narray
image2: 2d np.narray

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sobel_filter1 ()
sobel_filter2 ()
remove_background(n_im, photo_path2)
homogenize_brightness(n_im, photo_path2)

Class interrogation_window

window_image1: 2d np.narray
window_image2: 2d np.narray
cross_corr: 2d np.narray

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normxcorr2 ()
find_peak()
gauss_subpixel_peak_position()

Class normal_method

x_size: int
y_size: int
overlap: int

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result_dimensions ()
first_iteration ()

Class multigrid_method

x_size: int
y_size: int
overlap: int
num_passadas: int
dp_anterior: displacement_map

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result_dimensions ()
multigrid_method (dp_anterior)