Algorithm Instantaneous_vel_V1.0_July_2020: Algorithm for the measurement of instantaneous velocity and average velocity for the path selected by user on a Kymograph.

Developed by: Lokesh Agrawal (post-doc fellow) in the supervision of Prof. Marco Terenzio, Molecular neuroscience unit, Okinawa institute of science and Technology, Okinawa, Japan

How to run the algorithm: please follow the following steps:

- 1. Download the MATLAB version 2019a or higher versions.
- 2. Download the folder (Algorithm Instantaneous_vel_V1.0_July_2020) containing all the matlab file of the algorithm.
- 3. Open the Main_program_software file in matlab software.
- 4. Provide the path of the Kymograph image for the analysis in imread function; for eg. imread ("C:\Spontaneous_vel\Kymograph.jpg/tif")

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5. Run the Main_program_software file. When a window for the user selection opens, user has to select the path on the kymograph to calculate the pixel by pixel instantaneous velocity (shown in the image below).



6. Output *.CSV file will be saved in the output directory (instantaneous_vel) in C drive.

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