

A decorative graphic consisting of several blue lines and arrows. Three lines originate from blue circles at the bottom of the slide and curve upwards and outwards, ending in arrowheads. The lines are arranged in a way that they appear to be pointing towards the text above.

# **3D-PTV hand on demo**

**NCTRV, Les Houches 2019**

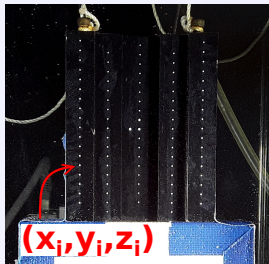
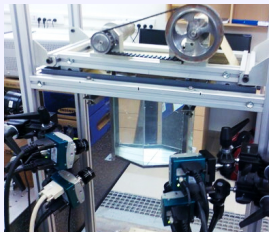
**Alex Liberzon & Ron Shnapp**

# OpenPTV

1. Documentation -  
<http://www.openptv.net/>
2. Where to get help -  
<https://groups.google.com/forum/#!forum/openptv>

# OpenPTV

1. The working folder
2. Run Test\_Cavity
  - 2.1 calibration
  - 2.2 first image - set parameters
    - ▶ detection (segmentation)
    - ▶ correspondence
    - ▶ 3D positions
  - 2.3 Sequence
  - 2.4 Detected particles
  - 2.5 Tracking (parameters)
3. Results on the ../res folder



# Post Processing (Turbulence!)

Two options:

Flowtracks package

Write your own code

[https://  
flowtracks.readthedocs.io/en/latest/](https://flowtracks.readthedocs.io/en/latest/)

1. get a single hdf5 data set
2. analyze the data (e.g. on jupyter notebook)

(analysis exaple -

<https://www.youtube.com/watch?v=EwBpuPlw5SM>)

# Usfull Links

OpenPTV - <http://www.openptv.net/>

Usage example -

<https://www.youtube.com/watch?v=A4lwqRESHVs>

Analysis exaple -

<https://www.youtube.com/watch?v=EwBpuPlw5SM>

Online notebook - [tiny.cc/postptv](http://tiny.cc/postptv)

Demo dataset - [https://figshare.com/articles/3D-PTV\\_Demo\\_-\\_Turbulent\\_Jet/7754834](https://figshare.com/articles/3D-PTV_Demo_-_Turbulent_Jet/7754834)

**Thank You!**