

## FlowMaster - Micro PIV



A **Micro PIV System** is designed to measure velocity fields of particle seeded flows with micron scale spatial resolution using PIV techniques. The light source is a double pulsed Nd:YAG laser that is focused by an epifluorescent microscope with a high numerical aperture on a microfluidic device. The microflow is seeded with fluorescent particles. A microscope lens collects the particle signal that has a longer wavelength than the illuminating light. This signal is separated from the laser light by a filter cube and is recorded by a double-frame **CCD camera**. LaVision's high sensitive **Imager Intense** camera is the best choice for Micro PIV applications, due to the low fluorescence signal levels. The double frame images are evaluated with conventional PIV algorithms.



### Applications

- Micro-Electro-Mechanical Systems (MEMS)
- biomedical devices
- sensors and nanostructures (actuators)

LaVision offers a wide range of lasers, microscopes and different light source couplings for micro PIV applications. Beside the conventional light microscopes LaVision has developed the **FlowMaster MITAS** system, an inverted laser imaging microscope for the routine and laboratory use in microfluids.