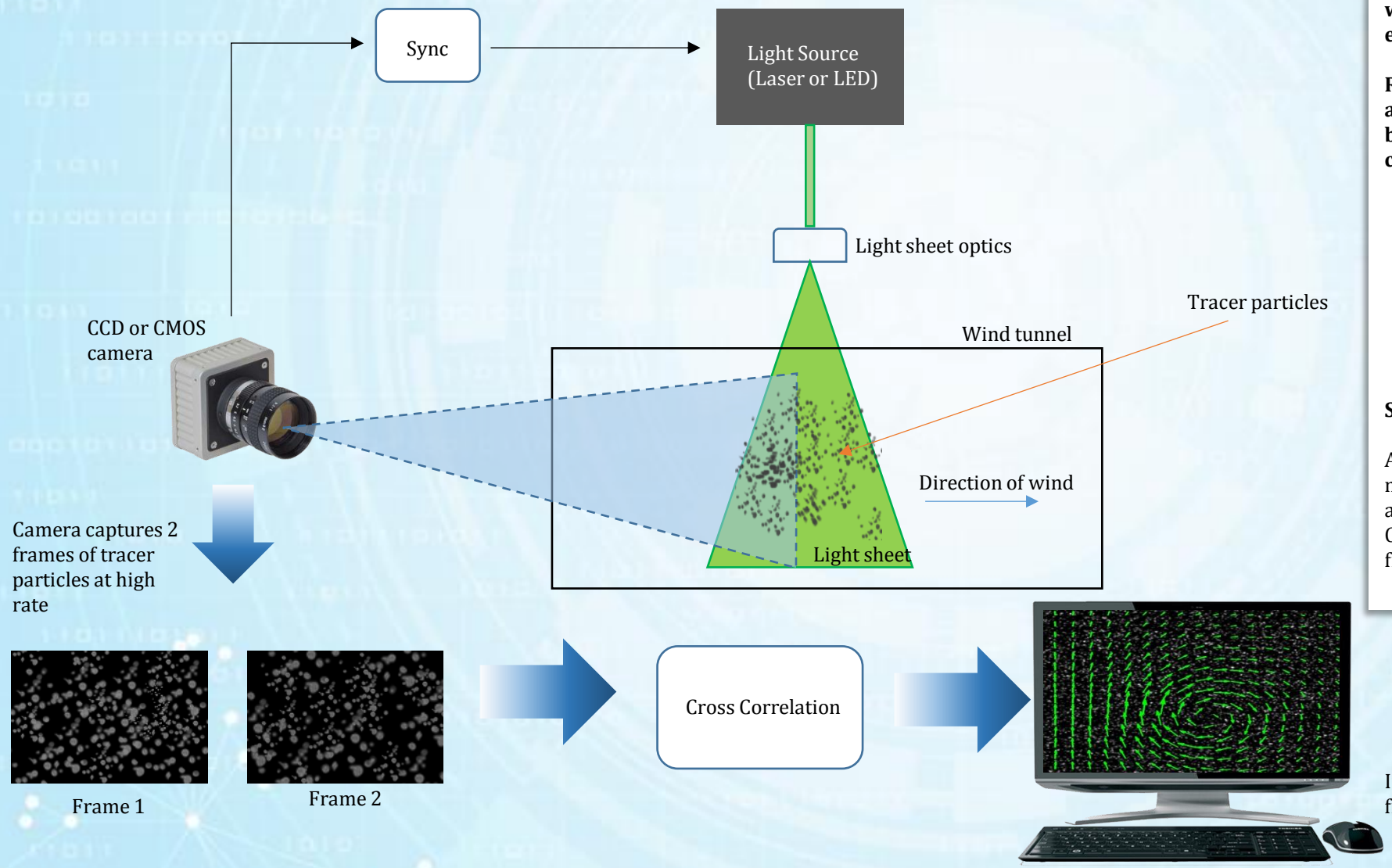


# High Speed Particle Image Velocimetry (PIV) - Particle Velocity Analysis



High speed particle image velocimetry (PIV) is a method used to study multi-dimensional and transient flows, which play a significant role in various areas of science, engineering, and health sciences.

Researchers use a process called autocorrelation to analyze PIV. However, the results using this process can be uncertain due to analog cameras being unable to capture multiple frames at high speeds.



**Solution:**

A CCD or CMOS camera is used for its ability to capture multiple frames at high speeds. This allows for a more accurate process called cross-correlation analysis since the CCD or CMOS camera can isolate each exposure on its own frame.

Image of velocity field