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| **Summer Placement Project Proposal** |
| Supervisor(s): Prof Dr Armin Reichold  Nominees in case of absence: Dr Laura Corner and Dr Johan Fopma  Duration of Placement: 2 to 3 months are reasonable  Date restrictions: preferably inside 4th July to 23rd September |
| **Section 1: Project description:**  Project title: Extending the data acquisition capabilities for an FSI metrology system  Include project aims here  By the summer of 2016 we expect to have completed the development of a novel DAQ system for our FSI application. The new DAQ will be based on the microTCA.4 standard that is starting to replace older standards such as VME or cPCI. The project will seek to set up a standard FSI system and compare its performance using the new and the old DAQ. To this extend FSI interferometers needs to be set up in the laboratory in a verification experiments, the DAQ systems will be connected to them and the FSI operational parameters adjusted to take full advantage of the new DAQ abilities. Analysis of the resulting data will measure the performance improvements. |
| **Section 2: Special requirements (skills and experience required):**  Required skills: Very good command of spoken and written English, must be able to work with laser and as such has to have vision on both eyes (we can provide safety training), knowledge of optics and interferometry principles, practical skills in a laboratory, preferably with optics setups, ability to extend existing computer based analysis algorithms using Java.  Desired skills: familiarity with FPGAs and their programming, ideas about digital signal processing, familiarity with Matlab and ideally simulink |