

Master thesis/bachelor thesis

in the subject area of

Multicore Fiber Amplifier Systems

Fiber lasers have established themselves as user-friendly and powerful laser concept. However, there are many photon-hungry applications asking for a performance far beyond the state-of-the-art. Parallelization is the path and multicore fibers represent the most compact and scalable architecture, to our opinion, multicore fibers are the future of high power ultrafast fiber lasers.

We offer a number of tasks around that general topic, which can be both of experimental and theoretical nature. As example, design aspects of the fiber itself (e.g. to avoid cross-talk in advanced designs) or the optical setup (imaging of beam patterns) could have a more theoretical focus, on the other hand characterization of the coherent or incoherent combination of the individual emissions and their frequency conversion are more experimentally oriented research topics.

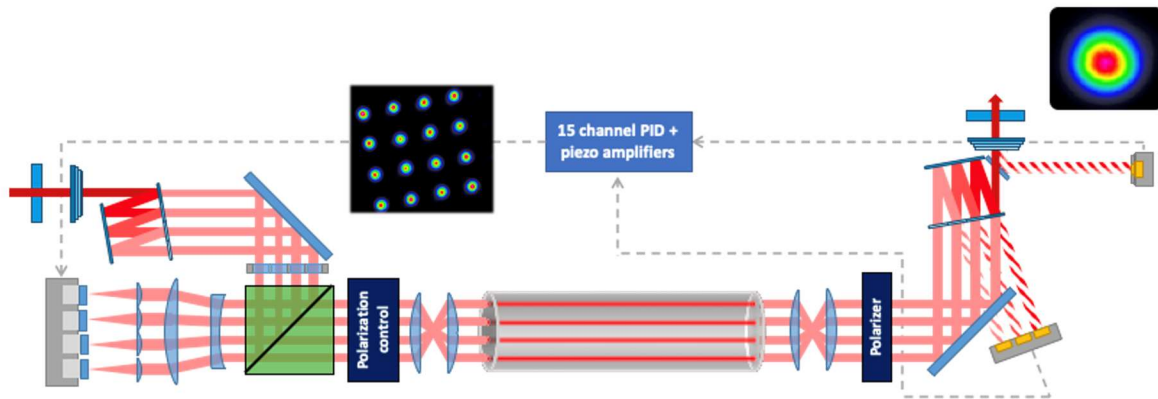


Fig.1 Optical arrangement of a multicore fiber laser system

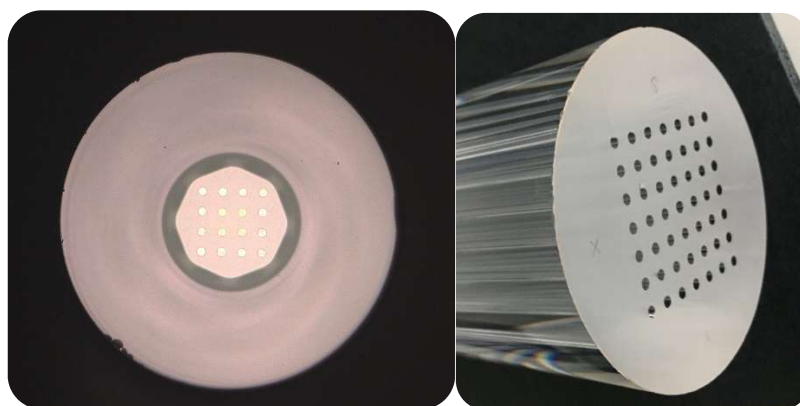


Fig 2: (left) 16core Ytterbium doped fiber and (right) preform for next generation 7x7 core fiber

For further information and if you are interested, please contact...

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