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## Beam shaping with controllable gain

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We propose a novel laser beam shaping technique based on the manipulation of the transverse gain profile in the laser crystal. The method allows controllable reshaping of a laser output beam into a desired beam profile. The proposed technique was successfully tested by both laser and laser amplifier systems with controllable gain. Two laser diodes were used to pump the crystal and to create a desirable pump beam profile. By independent manipulation of output powers of both pump diodes we are able to perform a controllable operation both the laser output intensity profile and transverse intensity of amplified laser beam.

**Apply to be considered for a student &nbsp; award (Yes / No)?**

No

**Level for award (Hons, MSc,   PhD, N/A)?**

N/A

**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

Yes

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