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Optimization of losses introduced by p absorbing mask in a Digital Laser

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**Abstract content (Max 300 words)
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Using the digital laser one can generate modes of any kind, namely, Laguerre-Gaussian modes. The laser was used generate Laguerre-Gaussian modes, and forced to only select fundamental mode LGp0, by using a mask made up of absorbing circle of with h. It is evident that forcing the fundamental mode of the cavity to be LGp0, reduce losses. Furthermore, circle of mask divided into N parts, show a dramatic reduce of losses, which results in lower threshold power. It is also evident that this does not necessary decrease or increase the slope efficiency of the laser.

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PhD

**Main supervisor (name and email)
and his / her institution**

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