

# LUCIA ANGEL

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## Supervisors:

- Farinaldo da Silva Queiroz and Torsten Bringmann



## Background:

- Indirect detection searches (member of CTAO collaboration)
- BBN to constraint new physics
- Light dark sectors

## Current projects:

- Direct detection limits in a inelastic vector DM model
- Limits on dark matter decay model with CTAO sensitivity
- Cosmological constraints for DM candidates produced from exponential growth mechanism
- Experimental setup to produce Dark photons for 1<sup>st</sup> time in Latin America

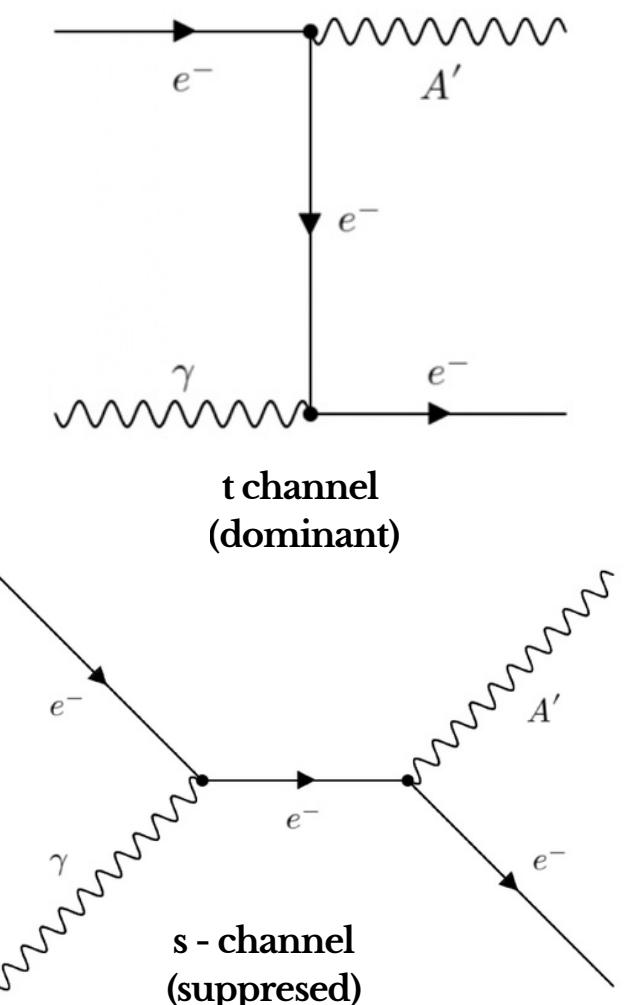


# A SEARCH FOR DARK SECTORS USING LASERS

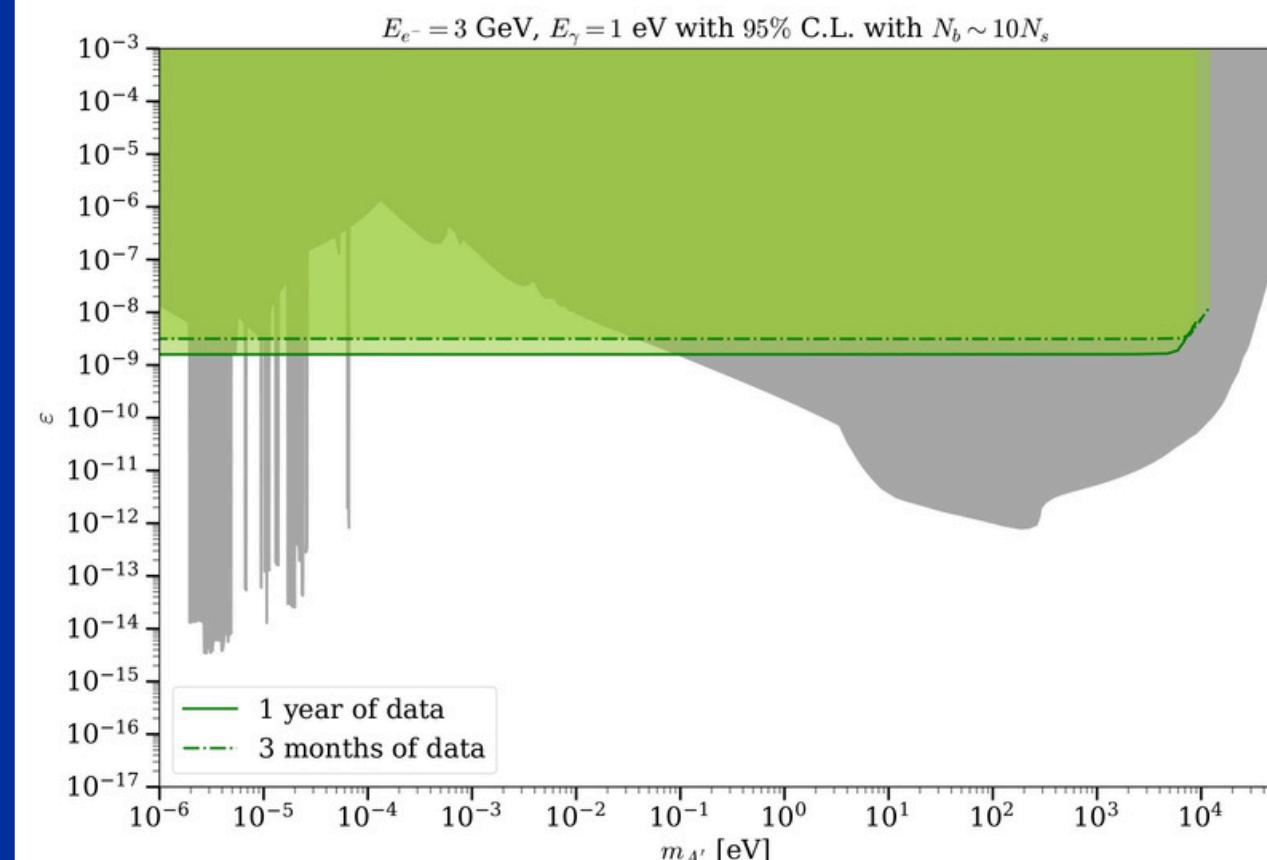


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## Dark Inverse Compton Scattering



## Sensitivity



A full version of this work will be available on ArXiv soon



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