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### **Accelerated rotation with orbital angular momentum modes**

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**Abstract:**

We introduce a class of light field that angularly accelerates during propagation. We show that the acceleration (deceleration) may be controlled by adjustment of a single parameter, and tuned continuously, down to no acceleration at all. As the angular acceleration takes place in a bounded space, the azimuthal degree of freedom, such fields accelerate periodically as they propagate. Notably, the amount of angular acceleration is not limited by paraxial considerations, may be tailored for large accelerations over arbitrarily long distances, and can be engineered independently of the beam's spatial extent. We discuss how such angularly accelerating light fields can maintain the conservation of angular momentum through an energy exchange mechanism across the field.