



# Custom Space Variant Retarders

Adapted to the specific end-user needs

## MAIN FEATURES

- Wavelength range from 200 nm to 3500 nm.
- High damage threshold: 63,4 J/cm<sup>2</sup> @1064 nm, 10 ns and 2,2 J/cm<sup>2</sup> @1030 nm, 212 fs.
- High 94% transmission @ 1030 nm (no AR coating).
- Aperture size from 1 mm to 15 mm.
- Suitable for high LIDT applications and high-power lasers.
- Reliable and resistant surface – the structure is inside the bulk.
- Custom fast axis and retardance patterns.



## Description

Space-variant retarders (SVR) fabrication is based on the inscription of self-organized nanogratings inside fused silica glass using a femtosecond laser.

Rapid prototyping enables the adaptation of every element to the specific end-user needs (like fast axis and retardance distribution, clear aperture, substrate shape, and thickness) without high additional development costs.

SVRs are space-variant retardance plates that enable tailored control of spatial polarization for high-power lasers as well.

**We can fabricate various SVRs for tailored polarization conversion and beam shaping**

