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The Ingot Wavefront Sensor: general updates and lab activities

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The Ingot Wavefront Sensor represents a new class of sensors that are aimed to overcome the limitations imposed by the LGSs geometry, which differently from NGSs, are not point-like sources but more elongated objects in the sky. The current design uses a reflective roof-shaped prism to split the light into three pupils that are used to retrieve the wavefront shape. In this work, we present the progress of the whole project focusing in particular on the laboratory activities performed at the INAF - Observatory of Padua. In this framework, we show the results obtained with a robust and automatic Python-code alignment procedure of the Ingot WFS with respect to the simulated LGS source and a preliminary analysis of the response of the Ingot WFS to low-order aberrations introduced with a deformable lens.

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