"Innovative Optical Materials for the developments of Diffractive and Holographic Devices."

V.Striano[1,2]; P.Cerabolini[1,2]; F.M.Zerbi[3]; A.Bianco [3]
Author Affiliations: [1] CGS S.p.a; [2] Antares S.c.a.r.l.; [3] INAF-OAB

--- ABSTRACT ---

This paper describes the experimental research on innovative polymeric materials for the realization of holographic optical elements.

The space technologies applied in the development of scientific payload as used in the analysis of the atmosphere composition for Planetary observation applications, have been used to realize highly efficient diffractive devices for integration in low cost and compact instrumentation, for terrestrial application as well.

--- SUNTO BIOGRAFICO DELL'AUTORE ---

Valerio Striano was born in Naples in 1978, since 2005 he is a senior researcher at CGS S.p.A. Compagnia Generale per lo Spazio (former Carlo Gavazzi Space S.p.A.) in the Research & Innovation Departement. He is also the Benevento site manager of ANTARES SCARL, a consortium of companies, with complementary expertise, from Campania region and non, with "Compagnia Generale per lo Spazio" as reference company. In Feb. 2004 he has his Master Degree cum laude in Physics at University of Naples "Federico II". In April 2008 he has his PhD degree in Electronic Engineering at Università "Mediterranea" di Reggio Calabria.

He can claim a special expertise in:

• R&D program management and proposal management for the main Italian Research Projects in collaboration with the main Research Institutes and Universities and other government customers, and ASI (Italian Space Agency) and ESA (European Space Agency)

• holography and holographic application

• Photonic and fiber optic sensors and devices

• Structural health monitoring systems for unmanned space vehicles.