Paolo Di Trapani

Paolo Di Trapani (1962, PhD in physics in 1991, married, 4 sons) is a physicist. He holds a full professor position at the University of Insubra in Como (IT). Paolo is also founder, president, and CEO of the University Spinoff CoeLux S.r.l., the company that has invented and commercialized artificial skylights indistinguishable from real ones.

Research and teaching activities at the University of Insubria

Paolo Di Trapani teaches classes in optics and experimental physics. Paolo also developed and directed two experimental facilities based on high-power ultrashort pulse (ps-fs) lasers. During his academic career, he performed experimental and theoretical research in the field of laser physics and ultrafast linear, nonlinear, and quantum optics. His main contributions in this field concern the development of high-power tunable femtosecond light sources, the understanding of spatial, temporal, and spatio-temporal spontaneous localization of light in nonlinear media, and the usage of non-trivial light beams (e.g., "conical waves") for ultra-precise laser cutting and drilling of thick transparent materials. In the field of nano-material science, Paolo is active in developing new nanostructured materials for reproducing the optical properties of the sky and a related technology for artificial illumination.

Among his main achievements, worth listing:

- Co-author of >160 publications in the field of ultrafast linear and nonlinear optics (among which 14 PRL; Scopus H index = 44; over 4500 citations) in peer-reviewed international ISI journals.
- Principal investigator and/or coordinator of >40 research projects.
- Fund raising for over €30 million from public and private partners.
- 2004-2008: Founder and director of VINO – the "Virtual Institute for Nonlinear Optics", an international network of researchers that operated in regime of full sharing of knowledge, funding, equipment, and training actions.
- 2001-2011: Founder and director of STELLA - the "School for Training in Experiments with Lasers and Laser Applications", which is the first international school where PhD students are trained by leading experimentalists directly on world-class experimental facilities up to the achievement of original scientific results. STELLA has been hosted by major EU laser facilities, including the Laser Research Center in Vilnius (2001 and 2007), the FORTH Institute of Electronic Structure and Lasers in Heraklion (2008), the

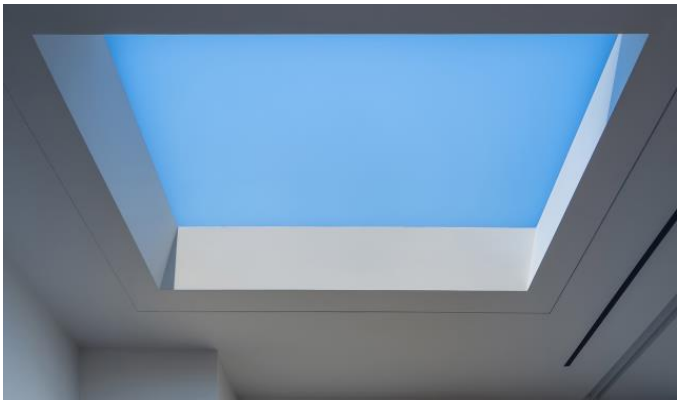
STELLA Scool 2011 @ Inusbria University

ICFO Institute for Photonic Sciences in Barcelona (2009), the Insubria University (2011) in Como, and the University of Pavia (2012).

- 2001-2007: Founder and director of "Di Luce in Luce", a wide-audience science-and-art theatrical exhibition. "Di Luce in Luce" tackles the indoor reconstruction of outdoor natural light and colour effects, by reproducing spectacular optical atmospheric phenomena, in which light is diffused, diffracted, or refracted by the air, the clouds, drops of rain, branches of a tree, etc. Through a series of experiments, the actor invites the public to have a glimpse of paintings, architecture, literature, photography, music, and even cinema, suggesting original interpretations of masterpieces. The exhibition was staged in Como (2002, 2005), Genova (2003, 2005), and Vilnius (2007), and has been visited by more than 30,000 people. Thanks to the knowledge gained during 7 years in the making of artificial natural lighting phenomena on stage, Paolo conceived how to reproduce the same by means of commercial products as well.
- Co-inventor of 150 patent applications organized in over 30 independent families in the field of lighting technology and nanostructured materials.

Business activities

In 2009, Paolo Di Trapani founded the academic spin-off CoeLux S.r.l. (www.coelux.com), of which he is President and CEO. He developed and positioned a disruptive technology on the market that reproduces the natural light of the sky and the sun, accompanied by the natural visual appearance and perceived infinite depth. The artificial skylights of CoeLux S.r.l. are capable of replacing conventional artificial illumination.



CoeLux 45 HC artificial skylight

Paolo's aim at CoeLux S.r.l. is to challenge the status quo of how people live indoors. His technology allows people to connect with the sky, in some cases even more effectively than the real sky. Indeed, artificial skylights of CoeLux S.r.l. have an impact on people's well-being and health, as already proven by a number of studies conducted by hospitals, universities, and research centers worldwide.

CoeLux S.r.l. won, among others, the following awards:

(i) EDISONREPORT, as one of the "Top 10 Lighting Products of 2014".
(ii) LUX AWARDS 2014 – as the "Light Source Innovation of the year".
(iii) MIT TECHNOLOGY REVIEW 2015, as one of the "Ten Italian Smart & Disruptive Companies".
(iv) DAVOS - WORLD ECONOMIC FORUM 2015, as one of the "Technology Pioneers 2015" (Among previous winners are: Dropbox (2012), Kickstarter (2012), Spotify (2011), Twitter (2010), Wikimedia (2008), and Google (2002)).
(v) FX AWARDS 2015, as the "Best Lighting Product of 2015".
(vi) MATELEC AWARD 2016, as the "Innovation and Energy Efficiency Award in the Illumination and Lighting Category".
(vii) LUX LIVE MIDDLE EAST AWARDS 2016, as the "Judges' Special Technology Awards".
(viii) DARC AWARDS 2017 - as the "Best Architectural Lighting Product".
(ix) EUROPEAN INNOVATION PRIZE FOR RETAIL 2017, as the sole winner.
(x) GOOD DESIGN AWARDS 2019 - Gold Winner.
(xi) CASAMBI AWARDS – BEST PRODUCT - 2022