

Projet H2020 – LLR

Nom du projet	Laser Lightning Rod
Call	H2020-FETOPEN-1-2016-2017 (FETOPEN-01-2016-2017)
Référence UE	737033
Type de projet	Research and Innovation Action (RIA)
Rôle de la HES-SO	Participant
Chercheur impliqué	Marcos Rubinstein (HEIG-VD)
Participants	Centre National de la Recherche Scientifique (FR) – Coordinator ; Université de Genève (CH) ; TRUMPF Scientific Lasers GmbH + Co. KG (DE) ; Airbus Safran Launchers (FR) ; AMCS (FR) ; Ecole Polytechnique Fédérale de Lausanne (CH) ; Haute Ecole Spécialisée de Suisse occidentale (CH)
Budget global	3'956'500 € / financement UE : 3'956'500€
Durée	48 mois, début le 01.01.2017
Résumé	<p>Controlling lightning is a long time dream of mankind. The goal of the present project is to investigate and develop a new type of lightning protection based on the use of upward lightning discharges initiated through a high repetition rate multi terawatt laser. The feasibility of the novel technique and the project's prospect of success are based on recent research providing new insights into the mechanism responsible for the guiding of electrical discharges by laser filaments, on cutting-edge high power laser technology and on the availability of the uniquely suitable Säntis lightning measurement station in Northeastern Switzerland. The LLR consortium is ideally positioned to succeed and to raise the competitiveness of Europe in lightning control as it relies on the integration of trans-disciplinary fields in laser development, nonlinear optics, plasma physics, remote sensing, and lightning: The project team is made up of leaders in the domains of high power nonlinear propagation of laser pulses in the atmosphere, laser control of electric discharges, lightning physics, high power laser development, and high-repetition-rate lasers. In addition, the largest European company in aeronautics brings its expertise in lightning direct effects and protection means on aircraft and infrastructures.</p>
Lien	pas encore disponible