LadHyX Seminar – February 2, 10:45 – LadHyX library

Tom Lolies, Bruce Goldsmith Design

Paragliding: a multi-physics problem to achieve Icarus dream

This talk will go over the main properties of flexible ram-air wings and their wide range of applications such as power generation, sailing boats, high precision aerial delivery and of course the most exciting of all: paragliding. Technical progress has been carried out empirically over the years by only a handful of passionate engineers, striving to decipher empirically the solutions of a highly nonlinear fluid-structure interaction problem. Indeed, the flying shape of cloth, which has nearly zero bending stiffness on its own, can only be determined if the fluid flow around and in the canopy is well known. And vice versa! Unfortunately, very few researchers have worked on this demanding problem. This talk will convince you that studying the physics of paragliders has a huge scientific potential with a broad spectrum of direct industrial benefits globally.