

T3_119 FLYING WITH THE RIGHT PHYSICS AT HAND.

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Looking at most of high school and university level textbooks it could seem that speaking of the physics of flying machines is quite a trivial, if not obsolete subject of study. A straightforward application of the Bernoulli's theorem, after all, is all one needs to describe the physical mechanisms of flight. This is not the whole story, however. Bernoulli's rendition of energy conservation requires that an inviscid fluid is present. Unfortunately, without viscosity, an airplane cannot fly. At all. So, what is the true story? At the conference we will present part of an experimental approach devoted to the correct way of addressing this important field of modern technology as well as of history of science (remember: fluids are everywhere!). Simple experiments and visualization tools will be made available at our desk for stimulating, at least we hope, useful discussion.