



Cut your LCOE by optimizing  
PV tracker performance

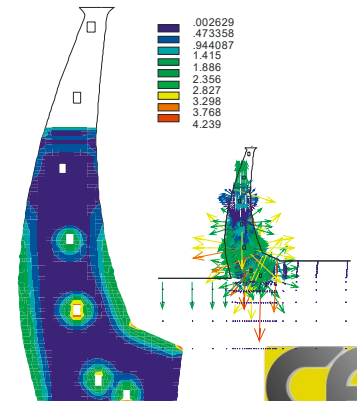
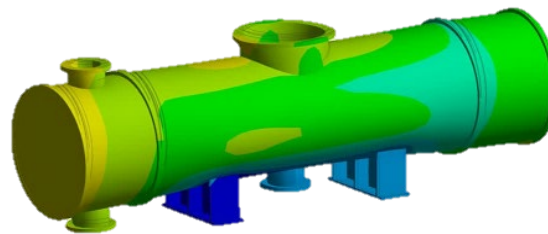
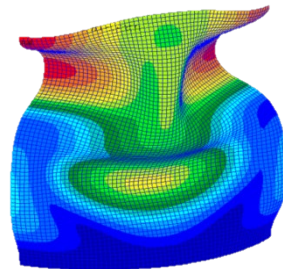
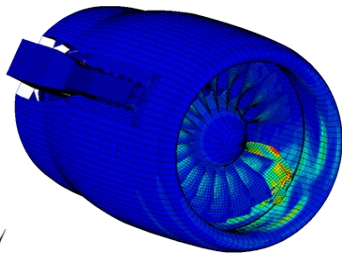
**Román Martín**

**Business Development Manager**

**Ingeniciber SA**

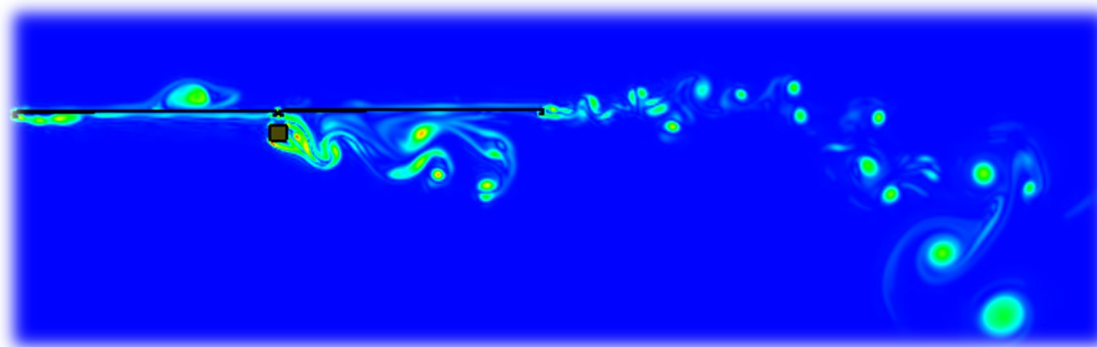
## Specialized CAE civil and mechanical engineering company

- More than 30 years supporting and distributing FEM based solutions including consultancy, software development, technical service and complementary software.
- High expertise in Civil, Mechanical Engineering and CFD projects.
- Over 3000 CAE program supplied including commercial, university and educational licenses.
- Educating Engineers and Technicians.

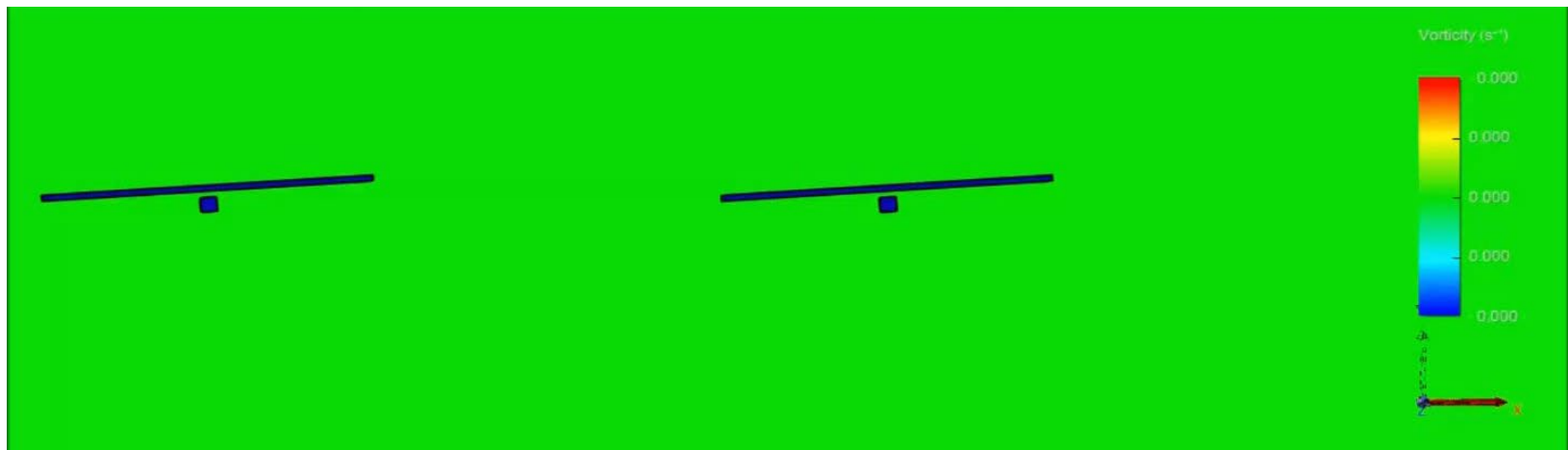
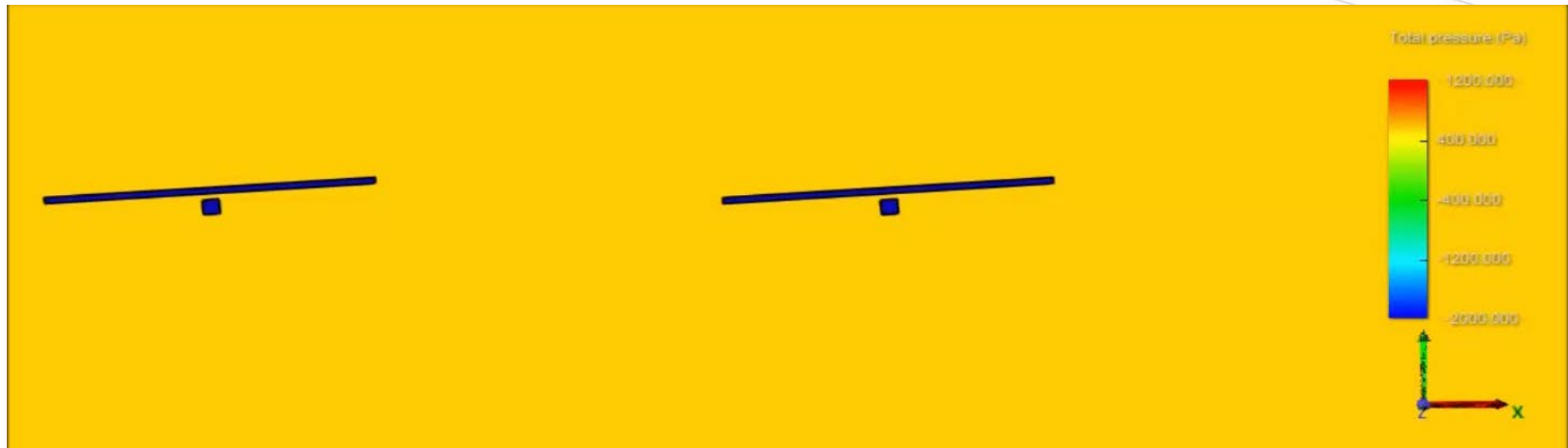


## Fluid-structure interaction analysis

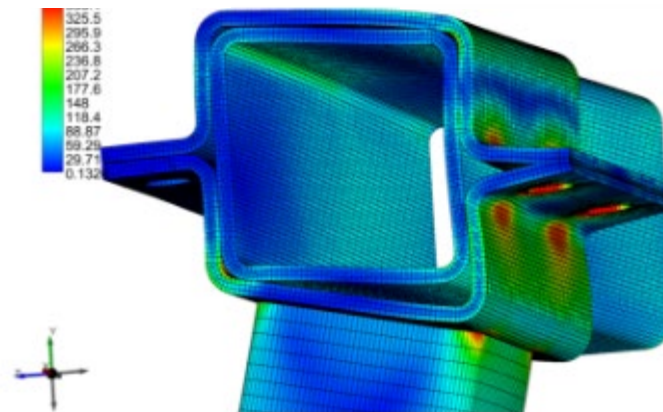
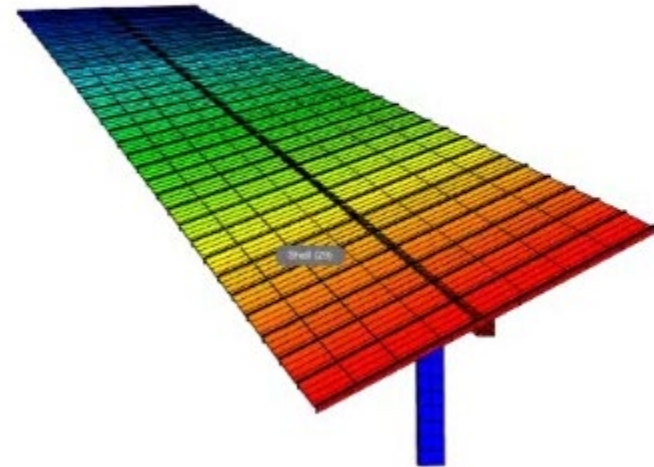
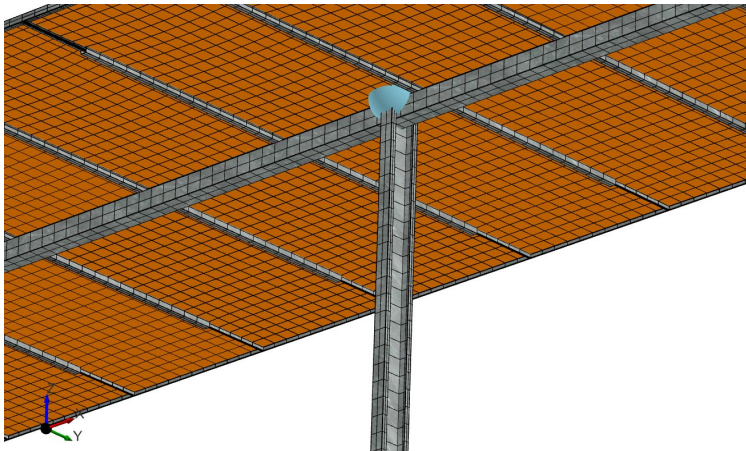
- Current design standards applied to solar trackers have been shown to be insufficient to prevent them from being affected by high wind loads.
- Conventional wind tunnels use rigid models that do not consider fluid-structure interaction effects such as the aeroelastic response of the structure.
- Aeroelastic response can lead to instabilities (torsional galloping/flutter) that can produce the collapse of the trackers.



## CFD dynamic analysis



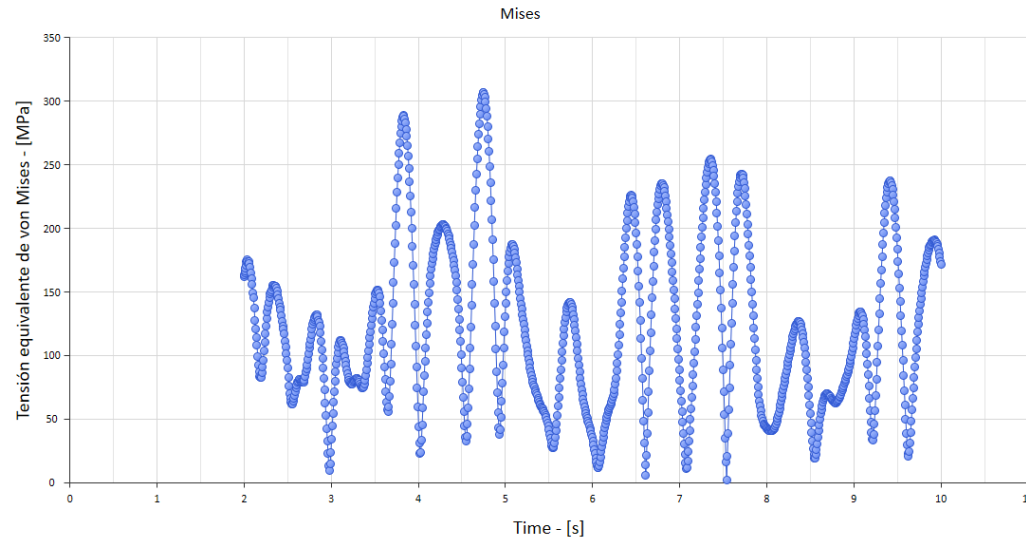
## Structural Analysis



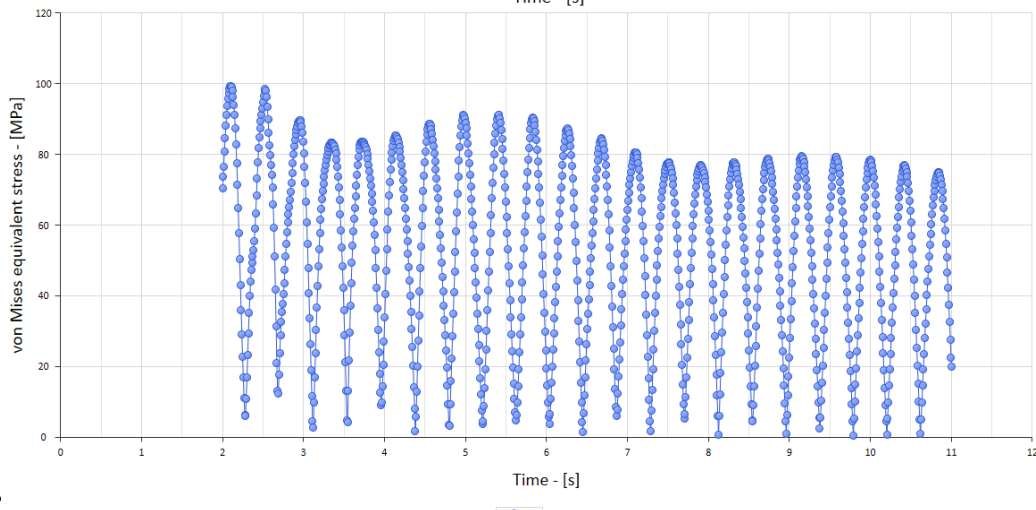


## Structural Analysis

**2P**



**1P**



## Other Analysis

