

## **Simulation Driven Design - Unleash the potential of Additive Manufacturing**

**Alessandro Amorese\***

\* Altair Engineering Srl

Via Livorno 60, 10144 Torino, Italy

e-mail: amorese@europe.altair.com, web page: <https://www.altair.com>

### **ABSTRACT**

The Altair contribution offers the opportunity to discover the most advanced simulation design technologies, that enables designer and engineers to create and investigate structurally efficient concepts in their daily work, in particular, to identify how to get the most benefits from the additive manufacturing, revolutionizing the entire product development process.

Nowadays, high competitiveness, high performance, system and component lightweight even more efficient are the main common needs in many companies. In this scenario, the innumerable advantages of the Additive Manufacturing, compared to the traditional techniques, are fundamental to guarantee high-quality production: the design freedom and the flexibility to explore very complex and non-conventional geometries allow the realization of lighter and more performing components.

Through concrete examples and success stories, we will talk about the best practices to follow in order to adopt virtual simulation as an essential element of the design process. At the end of the speech, there will be some applicative demonstrations of our products dedicated to the design for additive manufacturing.

Our testimony will be useful to all those interested in discovering or deepening the use of 3D printing as well as in detailed analyzing of what are the challenges and opportunities of additive design, starting from concept design up to the production of manufactured products.