SEMINAR

# Engineering problems in Packaging Industry supported by FEM Simulations

Tetra Pak has been leader in the Liquid Food Packaging industry since the '50s, with an innovative approach to packaging and food protection. The strive for constant innovation in the company, regarding both technology and products, has led through the years from chilled to aseptic packages, to the development of complex opening systems and recently to the use of electron beam technology to sterilize the packaging material.

The most critical issue for the release of new products nowadays is still the material - machine interaction, due to the intrinsic complexity of the filling and forming systems and the need to cope with a constantly variable material as paper board and the long chain of operations it undergoes from the paper mill to the finished package.

Lately the introduction of virtual simulations has tried to give engineers support in the design of machines and in the verification and root cause analyses of the issues and defects connected to the most common problems in the development of a new product, such as material wrinkles (affecting the package appearance), opening device dysfunctions or the deviations in obtaining the guaranteed amount of product inside the package.

An overview of the engineering problems and the computational methods used on a daily basis by the Tetra Pak simulation group based in Modena will be presented, together with a discussion on the current critical limitations and the ongoing development activities, with the aim of showing how computational tools are used in an industrial environment with a strong mindset towards client needs and time to market.

Dr. Andrea Giampieri
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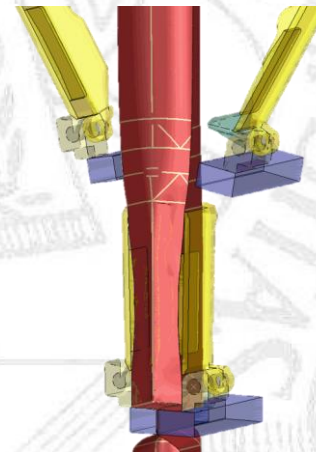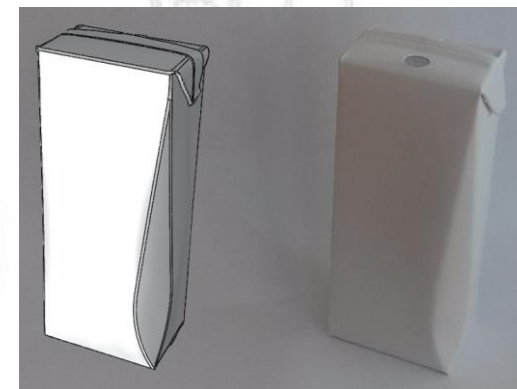
October 8th, 11:00am (sharp)
DICAr MS1 Meeting Room
Via Ferrata, 3 – Pavia