

IAS Seminar

Topic: **Application of a risk assessment methodology to quantify the life safety risk for people present in buildings in case of fire**

Speaker: Bart Van Weyenberge, Fire Engineered Solutions Ghent, Belgium

Contents: This talk describes a plan of attack for the development of a risk assessment methodology to quantify the life safety risk for people present in buildings in the context of the creation of a fire safety design. The current situation in countries with prescriptive based legislation (e.g., Belgium) is discussed. Two fundamental issues are discussed: lack of quantification of the global safety level of performance based designs, and the absence of quantitative comparison between the former and prescriptive concepts. Regarding these problems, a quantitative risk assessment approach for different types of buildings with complex geometries is suggested. The purpose is to develop a method which can verify the safety level of the designed building with the predefined safety level of the prescriptive requirements and compare alternative solutions with each other. From these objectives, a plan of attack is constructed in which the main challenges of the process are discussed and tackled. The focus is for the moment put on the probabilistic approach for dealing with different types of complex submodels. Case studies are performed in order to obtain knowledge about the sensitivity of different parameters and to test the pursued approach.

Time: Thursday, 5 November 2015, 13:00

Venue: Jülich Supercomputing Centre, Besprechungsraum 1, building 16.3, room 350

Anyone interested is cordially invited to participate in this seminar.

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