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invite you to a lecture and discussion within
the lecture series **ITAM Seminar**

Notches in Wood at Arbitrary Beam Location Under Arbitrary Loading: Numerical Modelling and Challenges

given by

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In both historical and modern structures, the phenomena of notching are omnipresent and evident. Notching is either characterized by abrupt changes of the cross section with respect to height or width, holes in beams or even loading – external or by internal forces or moments – not distributed over the whole cross section, but acting on subsections. At the location of the (therefore) created edge, the phenomenon of peak stress affects all involved stress components. The present design recommendations in EC5 handle only the onset of crack formation, which is induced by a coupled set of shear force and moment, as it is the case of, e.g., single span beams without further cantilevers. This situation challenges new approaches, since other loading configurations are often found in structures. The presentation critically evaluates the present state and sketches a possible improvement based on the numerical modelling. The discussion is based on results obtained during the internship taken at the IMWS TU Wien during the winter semester 2018/2019, which was supported by The Ministry of Education, Youth and Sports of the Czech Republic. The lecture is intended for broad audience and especially everybody with an interest in timber engineering/structural engineering.

The lecture will be held on Tuesday, June 25, 2019 at 10:00 AM in the building of the Institute of Theoretical and Applied Mechanics, Prosecká 76, 190 00, Prague 9.

Lecture 2019/07
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