

## INTERNATIONAL EXCELLENCE FELLOWSHIPS

### Experience Report 2021/2022

<b>Name and title of fellow</b>	Prof. Dr. Yuri (Juri) ESTRIN
<b>Duration and time of research stay</b>	3 months, 2 May – 31 July 2022
<b>Host professor and host institute at KIT</b>	Prof. Dr.-Ing. Thomas Böhlke, Institute of Engineering Mechanics - Continuum Mechanics (ITM-KM)

### Testimonial

<b>My research field is</b>
Design and Modelling of Novel Materials
<b>How my research field is going to affect the world of science?</b>
Innovative engineering solutions hinge on the availability of materials possessing the required design properties. Developing new materials whose inner architecture helps overcoming the limitations of the traditional ones is what my research field has to offer to the world of science and to the broader community.
<b>My main finding / highlight during my research work at KIT was</b>
A great “revelation” to me were some new insights in modelling of plasticity of solids. I now see the constitutive modelling approaches common in my community of materials scientists in a different light. The results obtained with Prof. Thomas Boehlke help improving the soundness and the predictive ability of the models of strength and plasticity. This is interesting scientifically and will also have implications in the engineering practice.
<b>I have chosen the Karlsruhe Institute of Technology because</b>
I have chosen the Karlsruhe Institute of Technology because of my long-standing links to some of its key researchers and because of KIT’s excellent reputation in the scientific community.
<b>If you want to, you can give advice to the next fellows. What should they know about Karlsruhe, KIT and the International Excellence Fellowships program?</b>
I believe the city and the institution do not need any advertisement. KIT is a brand that speaks for itself.