



# 岩土力学与工程前沿讲坛

Forum on Geomechanics and Geo-engineering

No.SK2023-41

应岩土力学与工程国家重点实验室邀请，捷克科学院地球学研究所教授 Petr Konicek 来访交流并做学术报告，报告信息如下：

报告人 Lecturer	<b>Assoc. Prof. Petr Konicek</b>
报告题目 Theme	<b>Evaluation of stress release efficiency of destress blasting</b>
报告时间 Time	<b>2023 年 11 月 23 日 (周四) 上午 09:30</b>
报告地点 Spot	<b>武汉岩土所研发大楼 8 楼学术交流室</b>

欢迎广大科研人员及研究生参加！

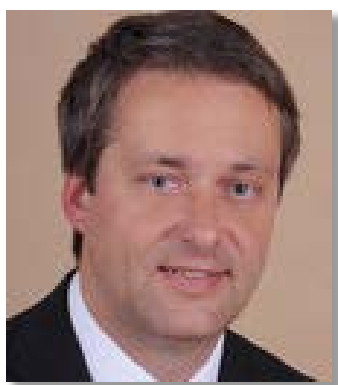
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### 报告摘要

Rockburst represents a very dangerous phenomenon in deep underground mining as well as in underground constructions in unfavourable conditions (great depth, high horizontal stress, proximity of important tectonic structures, etc.). The rockburst problem relates to the natural and mining conditions of the rock mass. It is very difficult to decide which of the factors prevails, but crucial role play occurrence of competent rock layers in the rock mass. Destressing techniques play a very important role as an active measure against rockbursts in many mining regions. The destressing techniques are a very important rockburst control techniques aim to competent rocks. The main goals of destressing are the softening of competent rock layers, reduction of strain energy storage and rock mass stress release. Destress blasting is a very important destressing technique which impacted rock mass due to explosion of explosive material in boreholes. This technique is used in ore mining as well as in coal mining for a long time and this technique was sometimes used in underground construction in non-uniform geomechanics conditions. The importance of destress blasting application is increasing with increasing mining depth and increasing competent rock layers' occurrence, as well as increasing horizontal stresses.

### 报告人介绍



**Petr Konicek** – M.Eng in geology in 1990 and PhD in Geotechnics in 2009 (Mining University in Ostrava, Czech Republic). He was appointed as an Associate Professor in Faculty of Civil Engineering of the Technical University of Ostrava in 2016. Throughout his career, Petr Konicek has investigated scientific problems related to mining geology and hydrogeology, rock mechanics, induced seismicity, rockburst prevention and destress blasting. He worked in coal mining industry (1990–1997) in the field of mining geology and in expert service company for collieries (1997–2009) in the field of geomechanics. He has developed and/or verified tools for evaluation of stress release due to destress blasting using seismic monitoring data, methodology for rockburst prevention in hardcoal longwall mining, methodology of safety reinforcement of gates in hardcoal mining and system for stress changes monitoring. He is court expert in the field of geomechanics (from 2011), president of the Czech National Group of the International Society for Rock Mechanics (from 2010) and Vice President et Large of the ISRM (2015-2019). He engaged in mining geology, geomechanics, rockburst and seismicity in coalmines and destress blasting application. He has published more than 80 scientific papers and official reports on these topics.