

Sunday | 19 Aug 2018 Monday | 20 Aug 2018 Tuesday | 21 Aug 2018 Wednesday | 22 Aug 2018 Thursday | 23 Aug 2018

**CAMPUS WARTA**

**CONFERENCE VENUE**  
Lecture Center of the Poznan University of Technology

**ground floor**

**first floor**

16:00 - 21:00

# Registration & Welcome

ICPSS | Opening Room 4

102# Protection of urban areas by using city furniture and landscape architecture, N.Gebbeken Room 4

coffee break

Room 7	Room 8	Room 9
Session 1.1 <b>Chair: Mark Stewart</b>	Session 1.2 <b>Chair: Jerzy Malachowski</b>	Session 1.3 <b>Chair: Yanchao Shi</b>
28# Reliability-based load factors for airblast and structural reliability of protective structures M.G. Stewart	2# Measuring overpressure caused by the detonation of explosives inside a horizontal tube P. Prochazka	56# Field tests on the local damage of reinforced concrete slabs under close-in explosions S. Yanchao
5# Urban security planning and design Ch. Liu	51# Effectively characterizing the effects of blast loadings F. Yifan	59# Static and dynamic compressive properties of clay bricks X. Zhang
50# Performance test results of the new system for mitigating the effect of accidental explosions N. Chikhradze	38# Study on stability of a converging cylindrical shock after perturbed by a sinusoidal air/SFG interface L. Fan	62# The reinforced concrete columns subjected to close-in blast loading A. Slosarczyk
39# Experiment and analysis of 3D composite floor system under a penultimate internal column removal scenario B. Yang	98# Numerical investigations of the shock wave attenuation effects using protective barriers made of steel posts X. Weifang	21# Reduced properties of RC elements subjected to fragmentation impact H.Y. Grisano
31# The University of Newcastle's Repeatable Explosive Blast Field Trials M. Netherton	99# Numerical investigations on the triple point path X. Weifang	64# Double mixing concrete antiknock performance test research Z. Yong

12:30-14:00 lunch Room 0.53

Room 7	Room 8	Room 9
Session 2.1 <b>Chair: Alex Remenikov</b>	Session 2.2 <b>Chair: David Yankelevsky</b>	Session 2.3 <b>Chair: Alexis Rusinek</b>
25# Numerical study of blast performance of concrete filled double-steel-plate composite walls J. Yu	3# Numerical simulations of commercial aircraft impacting on the AP1000 nuclear power plant H. Wu	23# Attenuation of the stress wave in coral sand by a new quantitative methodology with improved SHPB L. Chen
57# A substructure method for progressive collapse analysis of steel frame from external explosions D. Yang	68# Dynamics of elements of protective structures for vehicles under local impact loads L. Kruska	48# Behavior of sand subjected to low velocity impact loads: Application to the protection of structures from rock falls Y. Fargier
84# Development of SIS for use in intense blast environments Y. Zhang	109# Numerical and experimental investigations of shock wave effect on military vehicle G. Stawinski	67# Optimization of a split Hopkinson pressure bar device in order to investigate controlled multipulse loading on granular materials Ch. Roller
82# Local effects of ballistic impacts on UHPPRC targets M.C. Blasono	19# Performances of reinforced concrete bridge columns under vehicle impact Tin V. Do	69# Experimental analysis of perforation resistance of construction built materials taken into account a wide range of elevated temperatures L. Kruska
92# Heterogeneous lightweight configuration for protection against 7.62 mm bullet impact A. Khurshid	80# Numerical simulation and experimental testing of tire subjected to blast loading P. Baranowski	63# Impact resistance performance research of semi-flexible pavement material Z. Chao

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Room 7	Room 8	Room 9
Session 3.1 <b>Chair: Sam Rigby</b>	Session 3.2 <b>Chair: Hong Hao</b>	Session 3.3 <b>Chair: Yifei Hao</b>
40# Experimental overpressures inside a masonry box subjected to external blast loading D. Ambrosini	10# Damage type and damage index for K8 single-layer reticulated domes under exterior blast loading X. Zhai	30# Field blast testing and numerical investigation of fence type blast wall Y. Hao
17# Analytical model for the response of arching masonry walls under blast loading I.E. Edri	89# Mechanical response of Ti6Al4V regular cellular structures under drop-weight impact test loading conditions P. Piatek	32# An efficient model for progressive collapse analysis of RC structures under blast loading Z.X. Li
65# Predictive simulation of the response of adobe masonry during impact and explosion loads A. Heine	41# Protective potential of a metallic foam with ceramic inclusions T. Fris	90# Vertical pushover analysis of a reinforced concrete frame structure under a column removal S. Kokot
72# Assessment of support and attachment conditions used in masonry blast response research J. Davidson	96# Cladding blast mitigation performance of folded truncated square pyramid with infilled foam as core Z. Li	33# Parametric study of a column-slab connection punching under the impact of the upper slab Y. Karinski
101# Validation of near-field blast loading in LS-DYNA S. Rigby	27# Design codes on performance improvement of blast protection using sacrificial members Ch. Shim	77# Scaling of buried composite arch structure under internal blast loading P. Sze Dai

18:30-22:00 "Bimba Tram" + Brovaria experience

112# Constitutive modelling and simulation of materials and structures under extreme loadings due to impact loading at high strain rates, G.Voyiadjis Room 4

106# Near-field Blast loading: The challenges for measurement and prediction, A.Tyas Room 4

coffee break

Room 1	Room 7	Room 8	Room 9
	Session 4.1 <b>Chair: Qingming Li</b>	Session 4.2 <b>Chair: Shengui Lan</b>	Session 4.3 <b>Chair: Norbert Gebbeken</b>
	93# Mechanical behaviour of natural fibre reinforced cellular concrete Q. Li	4# Experimental study of a novel multi-hazard resistant prefabricated concrete frame structure X. Lu	1# Perforation resistance of infrastructure materials M. Seidi
	24# Behaviour of ultra-high performance fibre-reinforced concrete (UHPPRC) filled steel tubular members subjected to lateral impact loading Ch. Wu	60# Improvement of impact resistance capacity for precast segmental column with FRP wrap under blast load X. Zhang	9# Experimental research on performance of steel-concrete-steel sandwich composite shells under patch landing by a hemi-spherical hard Ch. Yan
	20# Ballistic resistance of Ductal® ultra-high performance fibre-reinforced concrete (UHPPRC) S. Dobrusky	66# Stress wave attenuation optimization in multilayered pavements subjected to extreme dynamic events J. Davidson	11# Development of dimensionless P-I diagram for curved steel-concrete-steel sandwich shell Y. Wang
	71# Analytical modelling of rigid projectile penetration into concrete medium V. Feldgun	46# Response of box-type reinforced concrete structure under blast load L. Gaur	16# Dynamic response of aluminum matrix syntactic foams sandwich panel subjected to metal foam projectile impact loading W. Wang
	75# Behaviour of concrete reinforced with fibers from end-of-life tires under high compressive strain rates M. Pajak	105# Ultimate strengths of stiffened panels of TWIP steel subjected to perpendicular pressure loading K. Kim	54# Experimental investigation of corrugated metal sheets subjected to blast loading Ch. Roller

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	Session 5.1 <b>Chair: Xihong Zhang</b>	Session 5.2 <b>Chair: Andrew Tyas</b>	Session 5.3 <b>Chair: Nobutaka Ishikawa</b>
	47# Experimental procedure for determination of energy absorption capacity for UHPPRC under localized impact loading R. Sovjak	29# Airblast variability and fatality risk estimation for explosive blasts in confined building spaces M.G. Stewart	18# Local deformation analysis of short span steel pipe beams against huge boulder impact N. Ishikawa
	86# Impact resistant capacity and failure behaviour of RC slab with corroded reinforcement H. Tamai	52# Blast loads analysis on cube and box-shape building J.R. Bueno	6# Numerical study on modeling of diamond-shaped wire net for rockfall protective structures M. Komuro
	78# P-I diagram method for performance-based design of RC beam under blast loading J. Liu	58# The experimental study of blast pressure loading acting on the human hidden behind the building corner T. Gajewski	49# Failure mechanisms within unreinforced concrete wall under rockfall impact loading Y. Fargier
	104# Feasibility study on CERP strengthened RC beams subjected to impact loadings K. Fujikake	81# Numerical simulation and experimental testing of protective panels J. Malachowski	8# Falling-weight impact test of FRP rods NSM RC beams N. Kishi
	13# Impact response analysis of RC beams strengthened with NSM FRP rods T. Kawarai	88# Blast enhanced dissipative facade fixation optimized by true balanced design approach G. Lori	76# Impact resistance performance assessment of wire ring net guard fence using full scale test and numerical analysis Y. Sonoda

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Session 6.1 <b>Chair: Krzysztof Cichocki</b>	Session 6.2 <b>Chair: Daniel Ambrosini</b>	Session 6.3 <b>Chair: Nowawi Chow</b>	Session 6.4 <b>Chair: Jefferson Buono</b>
85# Experimental data characterizing the behaviors associated with shear transfer across shear cracks in RC components M. Weaver	45# Equation of state of explosive detonation products Y. Zhao	95# Dynamic behaviour of flax fibre reinforced polymer under high-speed tensile loads N. Chow	35# Design and optimization of an anti-shock multilayer protective structure for electronic devices Bo Liu
113# Volumetric properties of concrete under hydrodynamic loadings H. Hao	114# Study on the mechanism of high-speed projectile into shelter made of spherical aggregate He Liling	25# An investigation of steel wire mesh reinforced high-performance geopolymer concrete subjected to blast load Ch. Wu	42# Material surface heterogeneity effects on metal micro-jetting ejection behavior at high-speed impact loads YI SHI
74# Dynamic behavior of reinforced concrete slabs blasting test - only one chance - experimental and numerical investigations M. Hering	70# Analytical modelling of experiments on blast loading on structural elements without using explosive charges V. Feldgun	22# On the mesomechanism of failure waves in polycrystalline alumina subjected to shock compression X. Feng	36# Design of protective structure and simulation study on fuze under impact loading M. Han
79# Strengthening effect of externally reinforced RC structure with SIFRCC on impact load S. Kim	7# Approximate solutions on the Alekseevski-Tate model of long-rod penetration X.W. Chen	34# Shock induced 7-iron phase transition studied with DEM L. Chao	37# Simulation and experiment study on protection of key electronic components in penetrating fuze M. Han

17:00-20:00 IAPS Board Meeting Room 121

20:00-22:30 Banquet / Gala Dinner Room 053

110# Laboratory testing of ductile and brittle materials under high strain rates, A.Rusinek Room 4

111# Blast analysis in the urban environment, N.Misselbrook Room 4

coffee break

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Session 7.1 <b>Chair: Masuhiro Beppu</b>	Session 7.2 <b>Chair: Wojciech Sumelka</b>	Session 7.3 <b>Chair: Jim Davidson</b>
43# A Method for evaluating the local failure of fiber-reinforced concrete plates subjected to projectile impact M. Beppu	103# Development and analysis of lightweight auxetic systems for blast and impact protection A. Remmenikov	91# Blast protection of glazing: a review by an industry partner A. Christian
44# Failure behavior of RC slabs subjected to deformable projectile impact S. Kataoka	87# Effect of textile reinforcement on the tensile behavior of strain-hardening cement-based composites (SHCC) under impact loading T. Gong	73# Predicted explosive load distribution on window cubicles J. Davidson
61# The behaviour of the concrete slabs with steel fibres under projectile impact: the experimental study A. Slosarczyk	12# Experimental study of the aluminum foam filled energy absorption connector under impact loading H. Al-Ritale	108# The concept of virtual cellular material in peridynamic modelling of deformation processes R. Pecherski
100# Analysis of impact resistance and protective characteristics of fibre reinforced concrete plates K. Cichocki	15# Study on cushioning characteristics of high-damper rubber protective structures Y. Wang	94# Experimental analysis of aluminium-rubber sandwich structure strength during perforation tests within a wide range of temperatures M. Kłosak
83# Failure Characteristics of High Performance Fibre Reinforced Cementitious Composites under High-speed Projectile Impact J. Moon	15# Study on cushioning characteristics of high-damper rubber protective structures Z. Huang	107# Application of the shock wave theory for the assessment of crushing force in the open-cell copper foams Z. Nowak

14# Ductal® material characterization and numerical model for blast and impact effects, S.Lan & S.Dobrusky Room 4

ICPSS | Closing Room 4

09:00-16:00

# Kórnik Castle Tour & Lunch

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