

IN MEMORIAM



**Michael P. Wnuk – Majkl Vnuk
1936–2014**

Odlazak prijatelja - *Nomen est omen*

Profesora Vnuka sam upoznala 1997. godine u Velikoj Plani gde se održavala 7. Međunarodna letnja škola mehanike loma. Znatno pre toga znala sam za njegovo poznanstvo sa profesorom Stojanom Sedmakom iz 1980. godine, kada je profesor Vnuk svoj sabatikal proveo u Jugoslaviji i za njihovu inicijativu da se oformi Međunarodna letnja škola mehanike loma. Tako je Prva letnja škola pod nazivom „Uvod u mehaniku loma i konstruisanje sa sigurnošću od loma“ (*Introduction to Fracture Mechanics and Fracture - Safe Design*) održana u Smederevskoj Palanci od 30. juna do 3. jula 1980. godine, na kojoj je profesor Vnuk, u to vreme zaposlen na Državnom univerzitetu Južne Dakote u Brukingsu, bio član uređivačkog i organizacionog odbora i održao uvodno predavanje - „Uvod u mehaniku loma u linearnoj elastičnosti“.

Upoznala sam ga kao već sredovečnog naučnika, ali je u njemu bilo uvek nečeg mladalačkog, i kad god bi se zvanični deo konferencije završio, Majkl bi se držao u skladu sa svojim prezimenom koje na njegovom maternjem jeziku znači unuk; ako je deda imao ozbiljno izlaganje, unuk je hteo svuda i da se provede. Sa jednakom prirodnošću nosio je i svoje slovenstvo i svoje amerikanstvo: po nečemu smo znali da je naš, Sloven, ali i da je Amerikanac. Sam Majkl nije potencirao ni jednu stranu, naprotiv, obe su u njemu bile srećno pomirene.

Radni vek je završio kao predavač na Univerzitetu Viskonsin (*College of Engineering and Applied Science, University of Wisconsin Milwaukee*). Septembra 2011. godine je povodom proslave svog 75. rođendana obeležio i 51. godišnjicu nastavnog i naučnog rada. Evo šta je povodom jubileja Majkl Vnuk napisao o sebi.

MICHAEL P. WNUK – BIOGRAPHICAL INFORMATION

Professor Emeritus Michael P. Wnuk has taught Engineering Mechanics at the University of Wisconsin Milwaukee for more than 20 years. In 1968 he completed his post-doctoral studies at California Institute of Technology in Pasadena, CA, specializing in Aeronautical Engineering. His paper resulting from the NASA supported research at Caltech won a reward at the IUTAM Congress at Stanford University in August 1968. He has also taught and performed research at various schools in the United States, including Michigan State University, Stanford University, California Institute of Technology and Northwestern. Dr. Wnuk has also worked abroad in England, Poland (his native country), Germany, Russia, Italy, Yugoslavia and China. In 1970 he worked as a Distinguished Visiting Scholar in the Department of Applied Mathematics and Theoretical Physics at the University of Cambridge, UK. The British Science Council and the Office of Naval Research of the US have sponsored his research there. The other sponsors of his researches include NATO, NASA, the National Science Foundation, National Academy of Sciences and the National Institute of Standards and Technology. In 1991, he was appointed a Fulbright Scholar, and in 1992, he received the Lady Davies Scholarship from the Government of Israel. He is a member of the Sigma Xi Research Society, an Associate Member of the Cambridge Philosophical Society in England, member of the American Academy of Mechanics, and a life member of the New York Academy of Sciences.

Dr. Wnuk is one of the co-founders and a co-chairman of the International Conference and Research Workshops on Mesomechanics, which convenes every two years (Tomsk, Siberia in 1996, Tel Aviv in 1998, China in 2000, and Denmark at the Aalborg University in 2002) in order to merge interdisciplinary research of high-tech nature involving Physics at nanoscale, Materials Engineering and Mechanics. He has been selected an ASEE/NASA Summer Faculty several times; in 1966 at the Johnson Space Center NASA White Sands Test Facility in New Mexico, and then in 1998, 1999, 2000, 2001, 2002 and 2003 at California Institute of Technology/Jet Propulsion Laboratory in Pasadena. Some of his recent work pertains to the bio-medical applications of Mechanics of Continuous Media, in particular Fluid Mechanics describing flow of non-newtonian multi-phase fluids, such as flow of blood in the human arteries. Since 1994 Dr. Wnuk serves as President of the Panslavia International Research Institute, Inc., which assists multinational partners in trade, science and technology transfer with particular emphasis on global problems of ecology and bio-medical R&D.

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Profesor Vnuk je učestvovao na svim Letnjim školama osim na Osmoj koja je održana 2003. u Beogradu. Na Drugoj međunarodnoj letnjoj školi mehanike loma (IFMASS 2) pod nazivom „Savremeni aspekti projektovanja i izrade sudova i cevovoda pod pritiskom“ održanoj juna 1982. godine, Majkl Vnuk je imao predavanje pod nazivom „Granična analiza sudova pod pritiskom oslabljenih greškama tipa prslina“. Na IFMASS 3 1984. godine održao je predavanje „Primena elasto-plastične mehanike loma za određivanje čvrstoće zavarenih spojeva“. Na Četvrtoj školi 1986. godine je održao predavanje pod nazivom „Razvoj modela mehanike loma za elasto-plastični lom i lom puzanjem“. Peta škola je održana juna 1989. godine u Dubrovniku, kada je imao predavanje pod nazivom *Onset and Early Stages of Fracture Propagation in Inelastic Solids-Cohesive Models of Quasi-Static Crack*, a posvetu na kojoj su mu se potpisali učesnici te škole sačuvao je i izložio na proslavi svog jubileja.



Prof. dr. M. WNUKU OSNIVAČ-INICIJATORU LETNE ŠKOLE






organizuju

**Petu međunarodnu letnju školu
mehanike loma**



**PROCENA VEKA
ENERGETSKIH POSTROJENJA UZ
PRIMENU MEHANIKE LOMA**

**FRACTURE MECHANICS APPLICATION
IN LIFETIME ESTIMATION OF
POWER PLANT COMPONENTS**

od 26. do 30. juna 1989. godine

Hotel "Libertas", Dubrovnik

Na Šestoj međunarodnoj letnjoj školi Mehanike loma pod nazivom „Eksploatacijske prslina u posudama pod pritiskom i rezervoarima“ 1991. godine, Majkl Vnuk je održao predavanje „Projektovanje posuda pod pritiskom primenom dozvoljenog oštećenja na osnovu nelinearne mehanike loma“; na IFMASS 7 1997. godine predavanje čiji su koautori bili i Aleksandar Sedmak i Todor Adžiev pod nazivom „Uticaj geometrije i zaostalih napona na otpornost zavarenih spojeva na rast prslina“. Na Devetoj školi 2005. godine održao je predavanje „Structural integrity of bonded joints“, a na Desetoj školi iz 2008. godine veoma zapaženo predavanje „Discrete and fractal aspects of fracture“.



Zahvalna sam što mi posao koji volim donosi poznanstva i saradnju sa ljudima od kojih mogu mnogo da naučim, ali koji su kraj sve posvećenosti struci bili dobri i istrajni prijatelji. Odlaskom profesora Vnuka izgubili smo i ozbiljnog učitelja i vedrog učesnika naših susreta. Nećemo ga zaboraviti, a nadam se da je njegovoj ličnoj geografiji Beograd ostao isto tako svetla tačka.

Lj. Milović

I na kraju, anegdota...

Proleće 1980...jedan sjajni, veliki čovek, široke slovenske duše, sedi u Beogradu i radi na organizaciji Prve Letnje Škole Mehanike Loma...traži predavača za Numeričke metode u mehanici loma...kaže njemu Stojan Sedmak, „pa nemamo mi takvog ovde“... a Majkl mu odgovara „imate, imate...Mladena Berkovića“... Eto tako je tada svetski poznati Mladen ušao u priču o Mehanici loma u Jugoslaviji, gde nije bio poznat. Na nesreću, i Mladen nas je napustio, ima već 15 godina.

A. Sedmak

New Trends in FATIGUE and FRACTURE

NT2F14 – FOURTEENTH INTERNATIONAL CONFERENCE

“Fatigue and fracture at all scales”

15-18 September 2014, Belgrade, Serbia

First Announcement

The Fourteenth New Trends in Fatigue and Fracture (NT2F14) international conference will be held in Belgrade, Serbia, from 15-18 September, 2014. Selected papers will be published in the international journal *Structural Integrity and Life*, ISSN 1451-3749. The conference will take place at the University of Belgrade, Faculty of Technology and Metallurgy and at the Innovation Centre of the Faculty of Mechanical Engineering. The organisation is supported by ESIS and the Ministry of Education, Science and Technological Development of the Republic of Serbia.

NT2F14 OBJECTIVES

This prestigious and long running conference will bring together delegates from around the world to discuss how to characterize, predict and analyze the fatigue and fracture of engineering materials.

NT2F14 will focus on all aspects of fracture and fatigue of wide range of materials (structural metals and alloys, advanced alloys and metallic systems, ceramics and glass, polymers, elastomers and composites, smart and functional materials, geomaterials and ice, cementitious materials for concrete, biomaterials), components and structures (welded components and weldments, pipelines, pressure vessels and other energy components, thin films, multi-layers, coatings and membranes, aerospace and aeronautics applications, micro-electro-mechanical systems (MEMS) and nano-scale components, shipbuilding, automotive industry), with special emphasis on multi-scale approaches and applications to renewable energy materials and challenging environments. This is a significant opportunity for you to join colleagues from around the world to exchange and discuss new ideas and findings and to present your work as a poster or oral presentation.

Structural Integrity and Life (ISSN 1451-3749) will be the supporting journal of the conference where all reviewed and accepted conference papers shall be published. Authors of selected papers will be invited to submit extended versions for publication.

TOPICS

- Fatigue
- Failure Analysis
- Criteria of Fracture and Failure
- Damage and Micromechanics
- Corrosion, Environmentally Assisted Cracking and Corrosion Fatigue
- Extended Finite Elements Methods and their Application
- Reliability and Integrity of Engineering Structures
- Microstructurally Short Cracks
- Simulation and Testing of Crack Propagation on all Length Scales
- Residual Stresses

Approaches to topics can be theoretical, experimental, numerical, with special attention paid to practical approach.

Venue and accommodation

The Conference NT2F14 will be held in Belgrade, capital of Serbia, that lies at the confluence of the Sava and Danube Rivers, with exclusive scenery. Days in September are pleasant in Serbia, the weather is nice and the temperature is agreeable. NT2F14 will be organized in the central area of Belgrade city, at the Faculty of Technology and Metallurgy, Karnegijeva 4 street and at the Faculty of Mechanical Engineering (which is located right behind), Kraljice Marije 16 street.

Participants will be accommodated in hotels close to the Faculties, average price 50 EUR for single and 70 EUR for double-bed.

organized by



University of Belgrade
Faculty of Technology and Metallurgy

Society for Structural Integrity and Life

Université de Lille 1
Sciences et Technologies

Laboratoire de Fiabilité Mécanique de
l'Ecole Nationale d'Ingénieurs de Metz



University of Belgrade
Faculty of Mechanical Engineering
Innovation Centre

Further information is available at:
<http://irc.inovacionicentar.rs/nt2f14>

Phone: (+381 62) 295-496

E-mail: nt2f14@divk.org.rs

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NT2F14 – FOURTEENTH INTERNATIONAL CONFERENCE**“Fatigue and fracture at all scales”****REGISTRATION INFORMATION**

Registration fees	Early bird registration deadline June 15, 2014	Late registration deadline September 11, 2014	Onsite registration
Conference Delegate	250 €	275 €	300 €
Student Delegate ¹	100 €	120 €	150 €
<p>¹ Student registration forms must be accompanied by a signed letter from the head of department attesting to student status.</p> <p>The registration fees include:</p> <ul style="list-style-type: none"> ➤ Access to the Conference sessions, Poster area and Workshops ➤ All conference documents and certificate of attendance ➤ Lunch and mid-session refreshments as scheduled in the Conference programme ➤ Conference dinner on Wednesday, September 17, 2014 ➤ Open bus tour-Belgrade sightseeing 			