



**Babeş-Bolyai University Cluj-Napoca**

**INTERNATIONAL CONFERENCE ON  
FIXED POINT THEORY AND ITS APPLICATIONS**

**July 9-18, 2012**

**Program**

The registration and all the lectures will be held in the main building of the Babeş-Bolyai University Cluj-Napoca, Kogălniceanu Street, No.1, 1<sup>st</sup> floor, rooms: Aula Iorga (AI), Aula Popoviciu (AP), Room Rado (126), Room 146.

**Sunday – 8 July 2012**

17.00-19.00 **Registration (Room 146)**

**Monday – 9 July 2012**

08.00-08.30 **Late Registration (Room 146)**

08.45-09.10 Opening Ceremony (Aula Iorga (AI))

09.10-10.15 Plenary Lecture: (presented by Stanisław Prus)  
(AI) **Kazimierz Goebel**  
*Problems I left behind*

10.15-10.35 **Coffee Break (Room 126)**

Chair: (AI) **Tomás Domínguez Benavides**  
(AP) **Brailey Sims**

Key Note Talks:

10.40-11.15 (AI) **Shigeo Akashi**  
*Fixed point theoretic approach to the Collatz mapping*

(AP) **Wojciech Kryszewski, Adam Kanigowski**  
*Perron-Frobenius and Krein-Rutman theorems for tangentially positive operators*

11.20-11.55 (AI) **Genaro López**  
*The role of nonexpansive type mappings in some optimization problems*

(AP) **In-Sook Kim**  
*Eigenvalue problems for nonlinear maximal monotone operators*

Short Talks:

12.00-12.15 (AI) **Stanisław Prus**  
*Estimates of the James constant for direct sums and interpolation spaces*

(AP) **Ian Searston**  
*Projection algorithms in CAT(0) spaces*

12.20-12.35 (AI) **Alexandru Mihai Bica, Mircea Curila, Sorin Curila**  
*Extending the method of successive approximations for integral equations*

- (AP) **Jamnian Nantadilok**  
*On new Furi-Pera type fixed point theorems involving four operators in Banach algebras*
- 12.40-12.55 (AI) **Tadeusz Kuczumow**  
*Families of  $k_D$ -nonexpansive retracts*
- (AP) **David Ariza-Ruiz**  
*Firmly nonexpansive mappings in geodesic metric spaces*
- 13.00-14.00 **Late Registration (Room 146)**  
13.00-15.00 **Lunch Break**
- Chair: (AI) **Vasile Berinde**  
(AP) **Genaro López**
- Key Note Talks:
- 15.00-15.35 (AI) **Ji Gao**  
*Semi-UKK spaces and fixed point property*
- (AP) **Zsolt Páles**  
*Iteration of averaging operators and Korovkin type theorems*
- Short Talks:
- 15.40-15.55 (AI) **Lukasz Piasecki**  
*Sharp evaluation of the spectral radius for mean lipschitzian mappings*
- (AP) **Helga Fetter**  
*A product space with the fixed point property*
- 16.00-16.15 (AI) **Víctor Pérez García**  
*Another version of the von Neumann-Jordan constant*
- (AP) **H. Salahifard, S.M. Vaezpour**  
*Fixed points of non-Lipschitzian type mappings in  $CAT(0)$  spaces*
- 16.20-16.40 **Coffee Break (Room 126)**
- Chair: (AI) **Biagio Ricceri**  
(AP) **Enrique Llorens-Fuster**
- Short Talks:
- 16.40-16.55 (AI) **Pavol Safarik**  
*A quantitative nonlinear strong ergodic theorem for Hilbert spaces*
- (AP) **Mahpeyker Öztürk, Metin Başarır**  
*Fixed point theorems for generalized weak contractions satisfying rational expressions in generalized  $g$ -cone metric space*
- 17.00-17.15 (AI) **Anna Betiuk-Pilarska, Stanislaw Prus**  
 *$N$  dimensional Riesz angle*
- (AP) **Mehdi Asadi**  
*Fixed point and common fixed point of mappings on  $CAT(0)$  spaces*
- 17.20-17.35 (AI) **Yasunori Kimura**  
*Approximation of a common fixed point of quasinonexpansive mappings in a geodesic space*
- (AP) **Victoria Martín-Márquez**  
*Asymptotic regularity of firmly nonexpansive mappings*
- 17.40-17.55 (AI) **Shahram Saeidi**  
*Fixed point properties and retractions*
- (AP) **Omar Muniz-Pérez**  
*On  $P$ - and  $p$ -convexity of Banach spaces*

- 18.00-18.15 (AI) **Thabet Abdeljawad**  
*Partially contractive type coupled fixed point theorems*
- (AP) **Elisabetta Maluta**  
*A class of  $P$ -convex spaces lacking normal structure*
- 18.20-18.35 (AI) **Takanori Ibaraki**  
*Shrinking projection methods for a family of generalized nonexpansive mappings in a Banach space*
- (AP) **Hossein Soleimani**  
*Fixed point approximations for mappings in geodesic spaces*
- 18.40-18.55 (AI) **Wiesława Kaczor**  
*Some remarks on demiclosedness principle*
- (AP) **Aynur Şahin, Metin Başarır**  
*The Strong and  $\Delta$ -convergence of  $S$ -Iteration Process for generalized nonexpansive mappings on  $CAT(0)$  space*
- 18.55-19.10 (AI) **Rajesh Kumar Saini**  
*Multivalued and singlevalued common fixed point results in partially ordered metric space*
- (AP) **Dorel Miheţ**  
*Probabilistic contractions with applications in the stability of functional equations*
- 19.30 **Departure by bus to URSUS Beer Factory** (in front of the main building of the University)

20.00-22.00 **Welcoming Party with beer tasting at URSUS Beer Factory**

## **Tuesday – 10 July 2012**

- 09.00-10.05 Plenary Lecture: (presented by Rafa Espinola)
- (AI) **William Art Kirk**  
*Fixed point theorems in metric trees and arcwise connected topological spaces*
- 10.10-10.30 **Coffee Break** (Room 126)
- 10.30-10.35 **First Official Photo of the Conference** (in front of the University)
- Chair: (AI) **Stanislaw Prus**  
(AP) **Tudor Zamfirescu**
- Key Note Talks:
- 10.40-11.15 (AI) **Andrzej Cegielski, Rafal Zalas**  
*Methods for variational inequality problem over the intersection of fixed point sets of quasi-nonexpansive operators*
- (AP) **Carlos A. Hernández-Linares, Maria A. Japón**  
*Some connections between renorming theory and fixed point property*
- 11.20-11.55 (AI) **Enrique Llorens-Fuster, Omar Muniz-Pérez**  
*Some relationships between sufficient conditions for the fixed point property*
- (AP) **Somyot Plubtieng**  
*Some existence results for system of general variational-like inequality problems*
- Short Talks:
- 12.00-12.15 (AI) **A.R. Khan, H. Fukhar-ud-din**  
*A unified approach to iterative construction of common fixed points in nonlinear domains*
- (AP) **Pierre von Mouche**  
*An equilibrium uniqueness result for aggregative games with a constructive proof*

- 12.20-12.35 (AI) **Erdal Karapinar**  
*Remarks on some recent publications in Fixed Point Theory*
- (AP) **Monica Patriche**  
*Fixed points for weakly semicontinuous correspondences and applications in equilibrium theory*
- 12.40-12.55 (AI) **Ilker Savas Yuce**  
*Rational forms that imply the uniqueness and existence of fixed points in partial metric spaces*
- (AP) **Z. Al-Rumaih, S. Chebbi, H-K. Xu**  
*Non-compact equilibrium points and applications*
- 13.00-15.0 **Lunch Break**
- Chair: (AI) **Maria A. Japón**  
(AP) **Zsolt Páles**
- Key Note Talks:
- 15.00-15.35 (AI) **Biagio Ricceri**  
*Some results and problems in fixed point theory*
- (AP) **Lai-Jiu Lin, Zenn-Tsun Yu, Chih-Sheng Chuang**  
*Fixed point theorems, convergence theorems and nonlinear ergodic theorems for new generalized nonlinear mappings in Hilbert spaces with applications*
- 15.40-15.55 Short Talks:
- (AI) **Tudor Zamfirescu**  
*Non-expanding mappings and fixed points in graph theory*
- (AP) **Sumitra Dalal, M. Alamgir Khan**  
*Coupled fixed point results in symmetric G-metric space*
- 16.00-16.15 (AI) **Kenan Tas**  
*Recent developments in cyclic contraction*
- (AP) **H. Bouhadjera, C. Godet-Thobie**  
*Common fixed point theorems for pairs of subcompatible and subsequentially continuous maps*
- 16.20-16.40 **Coffee Break (Room 126)**
- Chair: (AI) **Ulrich Kohlenbach**  
(AP) **Jürgen Appell**
- Short Talks:
- 16.40-16.55 (AI) **Koji Aoyama**  
*Fixed point and mean convergence theorems for hybrid mappings*
- (AP) **Radu Precup**  
*Weak Harnack inequalities and multiple positive fixed points*
- 17.00-17.15 (AI) **Mădălina Păcurar, Vasile Berinde**  
*On some fixed point theorems for contractive type mappings defined on product spaces*
- (AP) **Piotr Kasprzak**  
*On Leggett-Williams type theorems for nonlinear operators defined in cones with applications to nonlinear equations*
- 17.20-17.35 (AI) **Suthep Suantai**  
*Fixed point theorems and approximation methods for multi-valued mappings*
- (AP) **Paola Rubbioni**  
*Fixed point theorems for set-valued maps*

- 17.40-17.55 (AI) **Adriana Nicolae**  
*On a class of nonexpansive-type mappings in geodesic spaces*
- (AP) **Jacek Wośko**  
*Minimal displacement and measure of noncompactness*
- 18.00-18.15 (AI) **Daniel Körnlein**  
*Quantitative aspects of fixed point iterations for Lipschitz pseudocontractive maps*
- (AP) **Bżena Piątek**  
*Viscosity iteration in  $CAT(k)$*
- 18.20-18.35 (AI) **Satoshi Kodama**  
*A function theoretic generalization of Doss theorem related to Hilbert's 13<sup>th</sup> problem*
- (AP) **Filomena Cianciaruso, Vittorio Colao, Giuseppe Marino, H.-K. Xu**  
*Compactness results for differentiable functions and applications to the boundary value problems via fixed point methods*
- 18.40-18.55 (AI) **Toshiharu Kawasaki, Wataru Takahashi**  
*Fixed point and nonlinear ergodic theorems for new nonlinear mappings in Hilbert spaces*
- (AP) **Prasit Chulamjiak**  
*Fixed point results for contractive type mappings on cone metric spaces involved with a graph*

### Wednesday – 11 July 2012

- 09.00-10.05 Plenary Lecture: (presented by Adrian Petruşel)  
(AI) **Ioan A. Rus**  
*Five open problems in the fixed point theory in terms of fixed point structures (I): Singlevalued operators*
- 10.10-10.35 **Coffee Break (Room 126)**
- Chair: (AI) **Dušan Repovš**  
(AP) **Tadeusz Kuczumow**
- Key Note Talks:
- 10.40-11.15 (AI) **Jürgen Appell**  
*Fixed points, retractions, eigenvalues, and more*
- (AP) **Ulrich Kohlenbach**  
*Logical extraction of effective bounds from proofs in nonlinear ergodic theory*
- 11.20-11.55 (AI) **Vasil G. Angelov**  
*Various applications of fixed point theorems in uniform spaces*
- (AP) **T.A. Burton, Bo Zhang**  
*Fixed point theory for fractional equations*
- Short Talks:
- 12.00-12.15 (AI) **S.M. Vaezpour, S. Shabanian**  
*KKM theory in modular spaces*
- (AP) **Giuseppe Marino, Luigi Muglia**  
*Some auxiliary mappings generated by families of mappings and solutions of variational inequalities on common fixed points-sets*
- 12.20-12.35 (AI) **Aurelian Cernea**  
*Existence results for integral inclusions via fixed points*
- (AP) **Rafał Zalas, Andrzej Cegielski**  
*Generalized hybrid steepest descent method for variational inequality problem over the finite intersection of fixed point sets*

- 12.40-12.55 (AI) **Viorica Mureşan**  
*On a functional-differential equation*  
(AP) **Mircea Balaj**  
*Existence criteria for the solutions of three types of variational relation problems*

13.00-15.0 **Lunch Break**

- Chair: (AI) **Ioan A. Rus**  
(AP) **William Art Kirk**

Key Note Talks:

- 15.00-15.35 (AI) **Dušan Repovš**  
*A two-parameter control for contractive-like multivalued mappings*  
(AP) **Rafa Espínola**  
*The fixed point property for  $CAT(0)$  spaces for non convex and unbounded sets*  
15.40-16.15 (AI) **Vicențiu Rădulescu**  
*Fixed point methods in the study of nonlinear differential equations*  
(AP) **Palanichamy Veeramani**  
*Fixed point theorems and best proximity point theorems*

16.20-17.00 **Coffee Break and Poster Session** (University Club, E.de Martonne Street)

- Chair: (AI) **Radu Precup**  
(AP) **Jesus Garcia-Falset**

Short Talks:

- 17.05-17.20 (AI) **Adriana Buică, Jaume Giné, Jaume Llibre**  
*A second order analysis of the periodic solutions for nonlinear periodic differential systems with a small parameter*  
(AP) **Aurora Fernández-León**  
*Best proximity points for non-self mappings*  
17.25-17.40 (AI) **Szilárd András**  
*Kernel perturbation of Picard iterates for first order nonlinear systems with nonlocal initial conditions*  
(AP) **Koji Aoyama**  
*Fixed point and mean convergence theorems for hybrid mappings*  
17.45-18.00 (AI) **Valeriu Guţu**  
*On the connectedness of attractors of affine hyperbolic IFS*  
(AP) **Buthinah A. Bin Dehaish**  
*Mann iteration process for asymptotic pointwise nonexpansive mappings in metric spaces*  
18.05-18.20 (AI) **Abdolrahman Razani**  
*An application of Schauder's fixed point theorem*  
(AP) **Monika Budzyńska**  
*The Denjoy-Wolff theorem for condensing and holomorphic mappings*

## **Thursday – 12 July 2012**

07.30- 20.00 **One day trip to Alba-Iulia and Cetatea de Baltă including wine tasting and lunch (time: 15.00) in Bethlem-Haller Castle**

**Departure:** 07.30 - near the main building of Babeş-Bolyai University

**Meeting point:** in front of the main building of the University

We will visit Alba-Iulia citadel (**please take with you a white hat as protection against the sun**) and then, we will have lunch (including wine tasting) in Bethlem-Haller castle (**please take a jacket**, since the lunch will take place in the castle cellar where the temperature is around 18 Celsius degrees).

## Friday – 13 July 2012

Chair: (AI) **Rafa Espínola**  
(AP) **T.A. Burton**

Key Note Talks:

- 09.00-09.35 (AI) **C.E. Chidume, C.O. Chidume**  
*A convergence theorem for zeros of uniformly continuous generalized Phi-quasi accretive mappings*  
(AP) **Jesus Garcia-Falset**  
*Existence and uniqueness for an evolution equation arising in growing cell population*
- 09.40-10.15 (AI) **Sompong Dhompongsa**  
*On the means of projections on  $CAT(0)$  spaces*  
(AP) **Alexandru Kristaly**  
*Nash-type equilibria on Riemannian manifolds: a variational approach*

10.20-10.40 **Coffee Break (Room 126)**

Chair: (AI) **Helga Fetter**  
(AP) **Ştefan Cobzaş**

Short Talks:

- 10.40-11.55 (AI) **Berta Gamboa de Buen**  
*The fixed point property in the space  $c_0$  with an equivalent norm*  
(AP) **Liviu Cădariu**  
*Fixed point theorems for the Hyers-Ulam stability of functional equations*
- 12.00-12.15 (AI) **Vasile Glavan**  
*Linear horseshoes as random fixed points in affine IFS*  
(AP) **Krzysztof Bolibok**  
*Minimal displacement and fixed point property for Lipschitzian and uniformly Lipschitzian mappings*
- 12.20-12.35 (AI) **Alpár Richárd Mészáros**  
*Ulam-Hyers stability of elliptic partial differential equations in Sobolev spaces*  
(AP) **Cristian Vladimirescu**  
*Asymptotic stability to certain integral equations, via fixed point theory*
- 12.40-12.55 (AI) **Aqeel Khan**  
*Strong convergence by the shrinking effect of two half spaces*  
(AP) **Hudson Akewe**  
*Fixed point theorems for mappings satisfying general contractive condition of integral type in  $G$ -metric spaces*

12.40-12.45 **Second Official Photo of the Conference (in front of the University)**

13.00-15.0 **Lunch Break**

Chair: (AI) **S. Dhompongsa**  
(AP) **C.E. Chidume**

Short Talks:

- 15.00-15.15 (AI) **Marcel-Adrian Şerban**  
*Fibre contraction principle with respect to an iterative algorithm*
- (AP) **Ştefan Cobzaş**  
*Ekeland Variational Principle in asymmetric locally convex spaces and in quasi-uniform spaces*
- 15.20-15.35 (AI) **Bianca Satco**  
*An application of Krasnosel'skii fixed point theorem to nonlinear integral equations*
- (AP) **C. E. Chidume, N. Djitte**  
*Approximation of fixed points of continuous bounded pseudo-contractive mappings*
- 15.40-15.55 (AI) **S. Dhompongsa, A. Kaewkhao, B. Panyanak**  
*Browder's convergence theorem for multivalued mappings without endpoint condition*
- (AP) **Adrian Petruşel**  
*Fixed point theorems in vector-valued metric spaces with applications*

16.00-16.25 **Coffee Break (Room 126)**

- Chair: (AI) **Alexandru Tămăşan**  
(AP) **Berta Gamboa de Buen**

Short Talks:

- 16.30-16.45 (AI) **Monica-Felicia Boriceanu-Bota, Tünde Petra Petru**  
*The theory of a fixed point theorem for multivalued operators in b-metric spaces*
- (AP) **Elena Moreno**  
*Relations between classes of multivalued generalized nonexpansive mappings and fixed point theorems*
- 16.50-17.05 (AI) **Sorin Mureşan, Octavia Nica**  
*Some remarks on the bilocal problem*
- (AP) **Diana Otrocol**  
*On the asymptotic equivalence of a differential system with maxima*
- 17.10-17.25 (AI) **Cristian Chifu, Gabriela Petruşel**  
*Generalized contractions in metric spaces endowed with a graph*
- (AP) **Mohamadi Issa**  
*An approximation of the solution of some variational inequalities*

19.30-23.00 **Conference Banquet: Bellagio Restaurant at Opera Plaza Hotel Traian Moşoiu Street, No. 10-12**

## **Saturday – 14 July 2012**

- Chair: (AI) **Kazimierz Goebel**

Key Note Talks:

- 09.00-09.35 (AI) **Tomás Domínguez Benavides**  
*Looking for a renorming with the stable fixed point property*
- 09.40-10.15 (AI) **Brailey Sims**  
*Mean recurrences*
- 10.20-10.40 **Coffee Break (Room 126)**

Chair: (AI) **Elisabetta Maluta**

Key Note Talks:

10.45-11.20 (AI) **Jurij Kozicki**  
*Dynamics on Banach spaces with applications in life sciences*

11.25-12.00 (AI) **Alexandru Tămășan**  
*Conductivity imaging from minimal current density data*

Short Talks:

12.05-12.20 (AI) **Anton S. Mureșan**  
*Graphic contractions*

12.25-12.40 (AI) **Nicolaie Lungu**  
*Optimal Gronwall Lemmas*

13.00-15.00 **Lunch Break**

## **Sunday – 15 July 2012**

08.30 **Departure for the three days trip to Maramureș County** (in front of the main building of the University)

**Attention:** Please take with you a jacket and adequate shoes, since we will walk in the mountains at 1000 meters high.

## **Tuesday – 17 July 2012**

20.00 Arrival in Cluj-Napoca

## **Wednesday – 18 July 2012**

Departure of the participants