

Ondřej Kurka

**Amalgamations of classes of  
Banach spaces with a  
monotone basis**

MATH-KMA-2015/492

April 2015

Submitted



## List of preprints released in this series

All preprints available on <http://www.karlin.mff.cuni.cz/kma-preprints/>  
E-mail contact to series administrator: [kma-prep@karlin.mff.cuni.cz](mailto:kma-prep@karlin.mff.cuni.cz)

## 1999 – 2013

For the details on papers submitted in specified years see the web page of the preprint series.

## 2014

- MATH-KMA-2014/453 M. Cúth: *Characterization of compact monotonically ( $\omega$ )-monolithic spaces using system of retractions*
- MATH-KMA-2014/454 D. Campbell, S. Hencl, F. Konopecký: *The weak inverse mapping theorem*
- MATH-KMA-2014/455 Marek Cúth a Ondřej Kalenda: *Monotone retractability and retractional skeletons*
- MATH-KMA-2014/456 Dalibor Pražák and Jakub Slavík: *Nonstandard analysis of global attractors*
- MATH-KMA-2014/457 R. Černý: *Concentration-Compactness Principle for embedding into multiple exponential spaces on unbounded domains*
- MATH-KMA-2014/458 Filip Soudský: *Normability of Gamma spaces, case  $p < 1$*
- MATH-KMA-2014/459 S. Hencl, P. Honzík: *Dimension distortion of images of sets under Sobolev mappings*
- MATH-KMA-2014/460 Petr Petráček and Jiří Spurný: *On maximal Lindenstrauss spaces*
- MATH-KMA-2014/461 Jiří Spurný and Miroslav Zelený: *Baire classes of strongly affine functions on simplices and on  $C^*$ -algebras*
- MATH-KMA-2014/462 Petr Petráček and Jiří Spurný: *A characterization of complex  $L_1$ -preduals via a complex barycentric mapping*
- MATH-KMA-2014/463 A. Gogatishvili, F. Soudský: *Normability of Lorentz spaces - an alternative approach*
- MATH-KMA-2014/464 Michal Johanis: *A quantitative version of the Converse Taylor theorem:  $C^{k,\omega}$ -smoothness*
- MATH-KMA-2014/465 Robert Černý: *Concentration-Compactness Principle for Moser-type inequalities in Lorentz-Sobolev spaces*
- MATH-KMA-2014/466 Petr Petráček: *Lineability of nowhere monotone measures*
- MATH-KMA-2014/467 Hana Bendová, Ondřej Kalenda and Jiří Spurný: *Quantification of the Banach-Saks property*
- MATH-KMA-2014/468 Michal Johanis and Luděk Zajíček: *Smoothness via directional smoothness and Marchaud's theorem in Banach spaces*
- MATH-KMA-2014/469 P. Honzík: *Examples of singular integral operators with rough kernels*
- MATH-KMA-2014/470 S. Hencl, C. Mora-Corral: *Diffeomorphic Approximation of continuous almost everywhere injective Sobolev deformations in the plane*
- MATH-KMA-2014/471 Ondřej Kurka and Duan Pokorný: *Notes on the trace problem for separately convex functions*
- MATH-KMA-2014/472 T. Bárta, V. Janeček, D. Pražák: *Heat conduction problem of an evaporating liquid wedge*
- MATH-KMA-2014/473 S. Hencl, B. Vejnar: *Sobolev homeomorphism that cannot be approximated by diffeomorphisms in  $W^{1,1}$*
- MATH-KMA-2014/474 Andrea Cianchi and Lubo Pick: *Optimal Sobolev trace embeddings*
- MATH-KMA-2014/475 O. Kalenda and J. Spurný: *Baire classes of affine vector-valued functions*
- MATH-KMA-2014/476 Dalibor Pražák and Kumbakonam R. Rajagopal: *Mechanical oscillators with dampers defined by implicit constitutive relations*
- MATH-KMA-2014/477 J. Tier, L. Zajíček: *A Criterion of Gamma-nullness and differentiability of convex and quasi-convex functions*
- MATH-KMA-2014/478 Robert Černý: *Moser-Trudinger inequality in grand Lebesgue space*
- MATH-KMA-2014/479 T. Bárta, E. Faangová: *Convergence to equilibrium for solutions of an abstract wave equation with general damping function*
- MATH-KMA-2014/480 Jiří V. Outrata, Michal Červinka, Michal Outrata: *On Walras-Cournot-Nash equilibria and their computation*
- MATH-KMA-2014/481 L. Veselý, L. Zajíček: *Spaces of d.c. mappings on arbitrary intervals*

## 2015

- MATH-KMA-2015/482 Filip Soudský: *Basic functional properties of rearrangement-invariant spaces*
- MATH-KMA-2015/483 R. Černý: *New results concerning Moser-type inequalities in Lorentz-Sobolev spaces*
- MATH-KMA-2015/484 R. Černý: *On the weak continuity of the Moser functional in Lorentz-Sobolev spaces*
- MATH-KMA-2015/485 Tomáš Roskovec: *Construction of  $W^{2,n}(\Omega)$  function with gradient violating Lusin ( $N$ ) condition*
- MATH-KMA-2015/486 Ondřej Kalenda and Jiří Spurný: *Preserving affine Baire classes by perfect affine maps*
- MATH-KMA-2015/487 Martin Křepela: *Bilinear weighted Hardy inequality for nonincreasing functions*
- MATH-KMA-2015/488 Martin Křepela: *Iterating bilinear Hardy inequalities*
- MATH-KMA-2015/489 S. Hencl, A. Pratelli: *Diffeomorphic approximation of  $W^{1,1}$  planar Sobolev homeomorphisms*
- MATH-KMA-2015/490 V. Kryštof, L. Zajíček: *Differences of two semiconvex functions on the real line*
- MATH-KMA-2015/491 Dalibor Pražák, Jakub Slavík: *Attractors and entropy bounds for a nonlinear RDEs with distributed delay in unbounded domains*
- MATH-KMA-2015/492 Ondřej Kurka: *Amalgamations of classes of Banach spaces with a monotone basis*