

Libor Veselý, Luděk Zajíček

**A non-DC function which
is DC along all
convex curves**

MATH-KMA-2017/539

May 2017

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

1999 – 2015

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

2016

- MATH-KMA-2016/510 Amiran Gogatishvili, Martin Křepela, Lubo Pick and Filip Soudský: *Embeddings of Lorentz-type spaces involving weighted integral means*
- MATH-KMA-2016/511 Martin Křepela: *Boundedness of Hardy-type operators with a kernel: integral weighted conditions for the case $0 < q < 1 \leq p < \infty$*
- MATH-KMA-2016/512 Martin Křepela: *Convolution inequalities in weighted Lorentz spaces: case $0 < q < 1$*
- MATH-KMA-2016/513 O. Kalenda: *On projectional skeletons in Vaák spaces*
- MATH-KMA-2016/514 Marek Cúth: *Separable determination in Asplund spaces*
- MATH-KMA-2016/515 Miloslav Holík: *Reduction theorems for Sobolev embeddings into the spaces of Holder, Morrey and Campanato type*
- MATH-KMA-2016/516 Eva Buriánková, David E. Edmunds and Lubo Pick: *Optimal function spaces for the Laplace transform*
- MATH-KMA-2016/517 Dalibor Pračák, Kumbakonam R. Rajagopal, Jakub Slavík: *A non-standard analysis approach to a constrained forced oscillator*
- MATH-KMA-2016/518 T. Bárta: *Decay estimates for solutions of an abstract wave equation with general damping function*
- MATH-KMA-2016/519 Marek Cúth, Marián Fabián: *Rich families and projectional skeletons in Asplund WCG spaces*
- MATH-KMA-2016/520 Marek Cúth, Michal Johanis: *embedding of ℓ_1 into Lipschitz-free spaces and ℓ_∞ into their duals*
- MATH-KMA-2016/521 Zhuomin Liu and Jan Malý: *A note on Sobolev isometric immersions below $W^{2,2}$ regularity*
- MATH-KMA-2016/522 D. Campbell, S. Hencl and V. Tengvall: *Approximation of $W^{1,p}$ Sobolev homeomorphism by diffeomorphisms and the signs of the Jacobian*
- MATH-KMA-2016/523 J. Rataj and L. Zajíček: *On the structure of sets with positive reach*
- MATH-KMA-2016/524 L. Grafakos, D. He, P. Honzik and H. V. Nguyen: *The Hormander multiplier theorem I: the linear case revisited*
- MATH-KMA-2016/525 L. Grafakos, D. He and P. Honzik: *The Hormander multiplier theorem II: the bilinear local L^2 case*
- MATH-KMA-2016/526 Vendula Honzlová Exnerová, Jan Malý and Olli Martio: *Modulus in Banach Function Spaces*
- MATH-KMA-2016/527 M. Bohata, J. Hamhalter, O.F.K. Kalenda, A.M. Peralta and H.Pfützner: *Preduals of JBW^* -triples are 1-Plichko spaces*
- MATH-KMA-2016/528 Martin Michálek, Dalibor Pračák, Jakub Slavík: *Semilinear damped wave equation in locally uniform spaces*
- MATH-KMA-2016/529 Marek Cúth, Ondřej Kalenda and Petr Kaplický: *Isometric representation of Lipschitz-free spaces over convex domains in finite-dimensional spaces*
- MATH-KMA-2016/530 Luděk Zajíček: *On semiconcavity via the second difference*
- MATH-KMA-2016/531 S. Hencl and A. Kauranen: *Sobolev homeomorphisms in $W^{1,k}$ and the Lusin's condition (N) on k -dimensional subspaces*
- MATH-KMA-2016/532 O. Kurka: *Tsirelson-like spaces and complexity of classes of Banach spaces*

2017

- MATH-KMA-2017/533 Dietmar Kroner and Mirko Rokyta: *Error estimates for higher-order finite volume schemes for convection diffusion problems*

- MATH-KMA-2017/534 Tomáš Roskovec : *Sobolev homeomorphism in $W^{k,p}$ and the Lusin (N) condition*
- MATH-KMA-2017/535 Tomáš Bárta: *Sharp and optimal decay estimates for solutions of gradient-like systems*
- MATH-KMA-2017/536 Tomáš Bárta: *Optimal decay estimates for solutions to damped second order ODE's*
- MATH-KMA-2017/537 M. Cúth, O.Kalenda and P.Kaplický: *Finitely additive measures and complementability of Lipschitz-free spaces*
- MATH-KMA-2017/538 J. A. Barrionevo, L. Grafakos, D. He, P. Honzik, L. Oliveira: *Bilinear spherical maximal function*
- MATH-KMA-2017/539 Libor Veselý, Luděk Zajíček: *A non-DC function which is DC along all convex curves*