

# MARTIN MICHÁLEK

DATE OF BIRTH	<b>26 August 1988</b>
PLACE OF BIRTH	<b>Hradec Králové, Czech Republic</b>
TITLE	<b>Mgr.</b> (Master degree)

## COMPLETED EDUCATION

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PERIOD	<b>2004 — 2008</b>
SCHOOL	<b>Grammar school in Hradec Králové, mathematical class</b>

PERIOD	<b>2008 — 2011</b>
DEGREE	<b>Bachelor degree in Pure Mathematics</b>
RESULTS	<b>Summa cum laude, scholarship for the outstanding studying results (for years 2009, 2010)</b>
UNIVERSITY	<b>Faculty of Mathematics and Physics, Charles University in Prague</b>

PERIOD	<b>2011 — 2013</b>
DEGREE	<b>Master degree in Mathematical Analysis</b>
RESULTS	<b>Summa cum laude, scholarship for the outstanding studying results (for years 2011, 2012)</b>
UNIVERSITY	<b>Faculty of Mathematics and Physics, Charles University in Prague</b>

## EDUCATION IN PROGRESS

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PERIOD	<b>October 2013 — to date</b>
DEGREE	<b>Ph.D. in Mathematical Analysis</b>
SUPERVISOR	<b>prof. RNDr. Eduard Feireisl, DrSc.</b>
TOPIC	<b>Mathematical analysis of equations describing fluid mechanics</b>
UNIVERSITY	<b>Faculty of Mathematics and Physics, Charles University in Prague</b>
COOPERATING INSTITUTE	<b>Institute of Mathematics, Academy of Sciences ČR</b>

## CONFERENCES AND WORKSHOPS

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MAY 2013	<b>The 13th School in Mathematical Theory in Fluid Mechanics, Kácov, Czech Republic</b>
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OCTOBER 2013	<b>Workshop: Modelling Revisited + Model Reduction, Chateau Liblice, Czech Republic</b>
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MAY 2014	<b>Workshop: Regularity theory for elliptic and parabolic systems and problems in continuum mechanics, Telč, Czech Republic</b>
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JUNE 2014	<b>The week of doctoral students</b> , Praha, Czech Republic Short talk on the <b>Compressible Navier Stokes Equations</b>
JUNE 2014	<b>School on Nonlinear Analysis and Function Spaces</b> , Třešť, Czech Republic
SEPTEMBER 2014	Conference: <b>Modeling, analysis and computing in nonlinear PDEs</b> , September 21-26, Chateau Liblice, Czech Republic. Short talk: <b>Navier-Stokes equation with Entropy Transport</b>
OCTOBER 2014	<b>Cooperation on some topics in fluid mechanics</b> , October 14-23, Université du Sud - Toulon - Var, France
NOVEMBER 2014	Participant of <b>Oberwolfach Seminar: Analysis of Compressible Navier Stokes Equations and Related Topics</b> , November 23-29, Mathematisches Forschungsinstitut Oberwolfach, Germany
MARCH - MAY 2015	Participant of <b>Doc Course of Applied Mathematics</b> , Sevilla and Bilbao, Spain. Research project (under supervision of prof. Francisco Guillén): <b>Mathematical and numerical analysis of the modified Caginalp model for melting and solidification.</b>
MAY 2015	Participant of <b>BCAM Workshop on Mathematics and its Applications</b> , 27-29 May, Bilbao, Spain. Short speak on the topic: <b>Phase field modelling of melting and solidification</b>
JUNE 2015	Workshop participation: <b>Young Researchers in Fluid Dynamics</b> , Darmstadt, Germany, June 17-19 2015, Short talk on topic: <b>Compressible flows, mathematical and numerical analysis.</b>
JUNE - JULY 2015	Participation on the seminar: <b>Mathematical Thermodynamics of complex fluids</b> of Centro Internazionale Matematico Estivo, Cetraro, Italy, June 28 - July 4 2015

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#### LIST OF PUBLISHED ARTICLES

2014 M. Michálek. Stability result for Navier-Stokes Equations with Entropy Transport. *Journal of Mathematical Fluid Mechanics*, 2015

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#### LIST OF SUBMITTED ARTICLES

2014 E. Feireisl, T. Karper, M. Michálek. Convergence of a numerical method for the compressible Navier-Stokes system on general domains. *Submitted to Numerische Mathematik*

2015 E. Feireisl, R. Hošek, M. Michálek. A convergent numerical method for the full Navier-Stokes-Fourier system in smooth physical domains. *Submitted to SIAM Journal on Numerical Analysis*

## LANGUAGE SKILLS

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ENGLISH	<b>Fluent</b>
GERMAN	<b>Working knowledge</b>
FRENCH	<b>Fair knowledge</b>

## OTHER SKILLS

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PROGRAMMING	<b>Working knowledge of Python, C#, Visual Basic and MATLAB</b>
MATHEMATICAL MODELLING	<b>knowledge of FEniCS and other implementations of FEM and FVM</b>