

# CURRICULUM VITAE

## PERSONAL INFORMATION

Name	<b>Mihai STOICA</b>
Address	<b>Cunnersdorferstr. 12 B, D-01189 Dresden Germany</b>
Telephone	<b>+49 (0) 0351 4262 589</b>
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Nationality	German, Romanian
Date of birth	22.10.1972
Marital status	Married

## WORK EXPERIENCE

Actual title and institutional position	Assoc. Prof. Dr. Head (provisional) of the department Structural Research, Institute for Complex Materials at Leibniz Institute for Solid State and Materials Research Dresden (since 1.02.2015)
<ul style="list-style-type: none"><li>• Dates (from – to)</li><li>• Name and address of employer</li><li>• Type of business or sector</li><li>• Occupation or position held</li><li>• Main activities and responsibilities</li></ul>	February 2014- onward Leibniz Institute for Solid State and Materials Research IFW Dresden, 20 Helmholtz street, D-01069 Dresden, Germany Institute for Complex Materials, Structural Research Department Senior Scientific Researcher, Group Leader in the frame of the “INTELHYB” ERC Advanced Grant Material synthesis, thermomechanical processing and process optimization, phase analysis of micro- & nano- phases and structures
<ul style="list-style-type: none"><li>• Dates (from – to)</li><li>• Name and address of employer</li><li>• Type of business or sector</li><li>• Occupation or position held</li><li>• Main activities and responsibilities</li></ul>	September 2006- January 2014 Leibniz Institute for Solid State and Materials Research IFW Dresden, 20 Helmholtz street, D-01069 Dresden, Germany Institute for Complex Materials, Metallic Glasses and Composites Department Scientific Researcher Novel bulk metallic glasses and nanocomposite alloys: preparation and characterization
<ul style="list-style-type: none"><li>• Dates (from – to)</li><li>• Name and address of employer</li><li>• Type of business or sector</li><li>• Occupation or position held</li></ul>	March 2006-September 2006 University of Technology Darmstadt, Department of Materials and Geo Sciences, Petersenstrasse 23, D-64287 Darmstadt, Germany Physical Metallurgy Division Scientific Researcher (Wissenschaftliche Mitarbeiter)

- Main activities and responsibilities  
Structural characterization of bulk metallic glasses and nanostructured materials. Design of new compositions and develop new annealing processes in order to improve the mechanical properties of such materials.
- Dates (from – to)  
April 2005-March 2006
- Name and address of employer  
Institut National Polytechnique de Grenoble  
1130 rue de la Piscine, 38402 St. Martin d'Hères Campus, Grenoble, France
- Type of business or sector  
LTPCM- Laboratory of Thermodynamics and Physical Chemistry in Metallurgy
- Occupation or position held  
Scientific Researcher (Post-doc since 15.09.2005)
- Main activities and responsibilities  
Structural and mechanical characterization of bulk metallic glasses and nanocomposites
- Dates (from – to)  
June 2001-April 2005
- Name and address of employer  
Leibnitz Institute for Solid State and Materials Research IFW Dresden,  
20 Helmholtz street, D-01069 Dresden, Germany
- Type of business or sector  
Institute for Metallic Materials, Metastable and Nanostructured Materials Dept.
- Occupation or position held  
Scientific Researcher (Gast Wissenschaftler)
- Main activities and responsibilities  
Bulk amorphous alloys- preparation and characterization (structure, mechanical & magnetic properties)
- Dates (from – to)  
May 1997 – June 2001
- Name and address of employer  
National Institute of Research and Development for Technical Physics IFT Iasi, 47 D. Mangeron Blvd., RO-70 00 50 Iasi, Romania
- Type of business or sector  
Magnetic Materials and Devices Department
- Occupation or position held  
Assistant Researcher
- Main activities and responsibilities  
Amorphous alloys- preparation and characterization (structure, magnetic properties). Viscosity measurements of glass-forming alloys in the molten state using the oscillating-cup viscosimeter

## TEACHING EXPERIENCE

- Dates (from – to)  
2012- onward
- Name and address of the academic institution  
University of Technology Dresden, Germany
- Type of business or sector  
Materials Science Faculty
- Occupation or position held  
Teaching Assistant
- Main activities and responsibilities  
Lecture on Construction Materials (since the summer semester of the academic year 2011-2012)  
Lecture on Liquid/Solid phase Transformations (since the winter semester of the academic year 2014-2015)

- Dates (from – to) | October 2013- onward
- Name and address of employer | POLITEHNICA University of Timisoara, Romania, P-ta Victoriei 2, 300006, Timisoara, Romania
- Type of business or sector | Faculty of Mechanical Engineering
- Occupation or position held | Visiting Associate Professor
- Main activities and responsibilities | Teaching (metastable alloys, construction materials), diploma and master students co-guiding, research collaborations

## EDUCATION AND TRAINING

- Dates (from – to) | 2001-2005
- Name and type of organization providing education and training | IFW Dresden & University of Technology Dresden, Germany, Faculty of Mathematics and Natural Sciences
- Principal subjects/occupational skills covered | Research for PhD degree in Physics, PhD Thesis about “Casting and characterization of Fe-(Cr,Mo,Ga)-(P,C,B) soft magnetic bulk metallic glasses”
- Title of qualification awarded | Doctor rerum naturalium (Dr. rer. nat.)
- Level in national classification | Cum laude (gut)
  
- Dates (from – to) | 1996-1997
- Name and type of organization providing education and training | “Al. I. Cuza” University of Iasi, Romania, Faculty of Physics
- Principal subjects/occupational skills covered | Applied Physics- Processing Technology of Materials and Non-destructive Testing (non-destructive testing using X-ray,  $\gamma$ -ray, microwaves, ultrasounds, eddy-currents, optical methods)
- Title of qualification awarded | Master of Science
- Level in national classification | 10,00 (100 %)
  
- Dates (from – to) | 1991-1996
- Name and type of organization providing education and training | “Al. I. Cuza” University of Iasi, Romania, Faculty of Physics
- Principal subjects/occupational skills covered | Technological Physics
- Title of qualification awarded | Diplomat Engineer in Physics
- Level in national classification | 9,50 (95 %)

## AWARDS

- 1). ISMANAM 2007- The best young scientist award (International Symposium on Metastable and Nano Materials, 26-30 August 2007, Corfu, Greece).

- 2). The best business idea in the category "Technology" at the Business plan Competition "FutureSAX 2008"-phase I, The Saxon State Ministry for Economic Affairs and Labour.
- 3). Second place with the project "Megalloys" (i.e. possible products made from amorphous alloys) at the Business plan Competition "FutureSAX 2008"- phase II, The Saxon State Ministry for Economic Affairs and Labour.
- 4). 2011 IKM Research Award- The annual research award of the Institute for Complex Materials at IFW Dresden
- 5) The special prize of the President of the Leibniz Research Community for the ERC-StG application (2012)

## SCIENTIFIC ACHIEVEMENTS

Visiting Associate Professor at the POLITEHNICA University of Timisoara since the academic year 2013-2014.

Participant with oral presentations (the list of the invited talks is presented later in Annex) at international conferences and meetings (Italy, England, Germany, Poland, France, Romania, Greece, Argentina, USA, Spain, Portugal, Brazil, China, South Korea, Belgium, Russia, Hungary, Japan).

Reviewer for several journals: Nature Materials, Applied Physics Letters, Journal of Applied Physics, Journal of Physics, Journal of Materials Science, Journal of Materials Research, Solid State Phenomena, Philosophical Magazine Letters, Metallurgical and Materials Transaction A, Acta Materialia, Applied Surface Science, Journal of Crystal Growth, Composites Science and Technology, Intermetallics, Journal of Alloys and Compounds, Materials and Design, Journal of Magnetism and Magnetic Materials, Materials Chemistry and Physics, Materials Characterization, Materials Science and Engineering A & B, Journal of Non-Crystalline Solids, Journal of Physics and Chemistry of Solids, Physica B, Sensors & Actuators: A. Physical, Surface and Coatings Technology, Thermochemica Acta, Journal of Nuclear Materials.

Reviewer for Research Agencies: National Science Foundation (USA), Agence Nationale de la Recherche (France), United Arab Emirates University, AI Ain (UAE).

Member of the Local Organizing Committee of *International Symposium on Metastable and Nano Materials*, 3-7 July 2005, Paris, France (program responsible, editorial committee).

Member of the Local Organizing Committee of *BMG Europe 2007, European Networkshop*, 2-4 December, Paris, France.

Member of the Local Organizing Committee of *The 13<sup>th</sup> International Conference on Rapidly Quenched & Metastable Materials RQ13*, 24-29 August 2008, Dresden, Germany (editorial committee).

Member of the Scientific Committee of the *Advanced Materials and Structures IV*, 27-28 October 2011, Timisoara, Romania.

Symposium Organizer (C13- Metallic glasses and related composites: new routes for functional and strong materials) at *EUROMAT 2011 Conference*, 12-15.09.2011, Montpellier, France

Symposium Organizer (B1-II- Metallic glasses and their composites) at *EUROMAT 2013 Conference*, 8-13.09.2013, Seville, Spain

Member of the Scientific Committee of the *Fifth International Conference on Advanced Materials and Structures*, 24-25 October 2013, Timisoara, Romania.

Member of the Scientific Committee of the *Sixth International Conference on Advanced Materials and Structures*, to be held in October 2015, Timisoara, Romania.

Member of the team of the EU-RTN project HPRN-CT-2000-00033: "Bulk Metallic Glass Forming Alloys and Nanocrystallisation, properties and application", 01.06.2001 – 31.05.2003

Member of the team of the EU-RTN project MRTN-CT-2003-504692: "Ductilization of Bulk Metallic Glasses by Length-scale Control in BMGs Composites and Applications", 15.09.2005 – 14.03.2006.

Leader of EU-CMA project STP 3-3-02: "Magnetic properties of complex metallic alloys formed upon devitrification of Fe-based BMG", 01.04.2008 – 30.09.2008.

Leader of national DFG project (eigene Stelle) STO 873/2: "Phase formation, crystallization kinetics and properties of (Fe,Co)-based bulk metallic nanocomposites", 01.11.2010 – 31.10.2013.

Member of the team of the EU-ITN project 607080: "Vitrified Metals Technologies and Applications in Devices and Chemistry", start date 01.10.2013.

Group leader in the frame ERC Advanced Grant INTELHYB (team of 6 Post Doc researchers), start date 1.02.2014.

High quality scientific activity concretized in numerous publications, as summarized in the annex. A search in Thomson-Reuters database returns: 117 papers, cited 1019 times (867 without self-citations), the Hirsch-factor  $h = 17$  (as of 13 February 2015)

## PERSONAL SKILLS AND COMPETENCES

### MOTHER LANGUAGE

Romanian

### OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

English	German	French	Spanish	Italian
<i>Good</i>	<i>Good</i>	<i>Good</i>	<i>Good</i>	<i>Good</i>
<i>Good</i>	<i>Good</i>	<i>Average</i>	<i>Basics</i>	<i>Basics</i>
<i>Fluent</i>	<i>Fluent</i>	<i>Average</i>	<i>Basics</i>	<i>Basics</i>

### SOCIAL SKILLS AND COMPETENCES

Capability to work in multicultural environment. Collaborations with peoples from different countries. Always friendly, ready to offer help and assistance

### TECHNICAL SKILLS AND COMPETENCES

Learning in a very short time how to use a new device. High ability to work with different equipment. Successfully setup at IFW Dresden several new devices used for copper mould casting and water-gas atomisation. Familiar with techniques and devices used for mechanical

characterization and structure investigation, as well as for magnetic measurements and microscopy (optical and electronic).

Advanced PC user and familiar with various operating systems: DOS, Windows and Linux. Advanced knowledge about computer hardware.

Important experience acquired by working abroad. Trained in special kind of investigations: at European Synchrotron Radiation Facilities (ESRF) Grenoble, France and HASYLAB Hamburg, Germany (X-Ray diffraction using synchrotron beam) and at the University of Seville, Faculty of Physics (electronic microscopy- SEM, TEM, sample preparation).

## REFERENCES

Prof. Jürgen Eckert, IFW Dresden, Germany

e-mail: j.eckert@ifw-dresden.de

Prof. Alain Reza Yavari, INP Grenoble, France,

e-mail: yavari@minatec.inpg.fr

Prof. Ludwig Schultz, IFW Dresden, Germany,

e-mail: l.schultz@ifw-dresden.de

## CO/SUPERVISOR

5 Diploma and pre-diploma theses

4 Master thesis candidates

6 PhD candidates

11 Post-doctoral fellows

## PUBLICATIONS

5 Books and Book Chapters

3 times Editor and Guest Editor

5 Patents (granted and pending)

121 peer reviewed Journal Papers

6 Contributions to Collected Editions/ Proceedings

36 Invited talks

## PROJECT-RELATED EMPLOYMENT HISTORY

Dates	Employer	Role and Details
May 1997	NIRDTP Iasi,	<b>Team member</b> , several projects granted by Romanian Ministry for Science and Research.
June 2001	Romania	
June 2001	IFW Dresden,	<b>Team member</b> , EU-RTN project HPRN-CT-2000-00033: "Bulk Metallic Glass Forming Alloys and Nanocrystallisation, properties and application".
Mai 2003	Germany	
June 2003	IFW Dresden,	<b>Team member</b> , several projects granted by the German Research Association (DFG).
March 2005	Germany	
April 2005	INPG Grenoble,	<b>Team member</b> , EU-RTN project HPRN-CT-2002-00208: "Improved Hydrogen Sorption Kinetics in New Magnesium Composites for Clean Energy Storage and Transport and EU-RTN project MRTN-CT-2003-504692: "Ductilization of Bulk Metallic Glasses by Length-scale Control in BMGs Composites and Applications".
February 2006	France	

March 2006 August 2006	TU Darmstadt	<b>Team member</b> , faculty founded research position.
September 2006 June 2007	IFW Dresden, Germany	<b>Team member</b> , DFG-SPP 1120: Phasenumwandlungen in mehrkomponentigen Schmelzen (Phase transformations in multicomponent melts, DFG-Schwerpunktprogramm).
July 2007 October 2010	IFW Dresden, Germany	<b>Leader</b> of an industrial project granted by OCAS N.V. related to Fe-based BMGs.
April 2008 September 2008	IFW Dresden, Germany	<b>Leader</b> of EU-CMA project STP 3-3-02: "Magnetic properties of complex metallic alloys formed upon devitrification of Fe-based BMG".
November 2010 October 2013	IFW Dresden, Germany	<b>Leader</b> of national DFG project (eigene Stelle) STO 873/2: "Phase formation, crystallization kinetics and properties of (Fe,Co)-based bulk metallic nanocomposites".
November 2013 January 2014	IFW Dresden, Germany	<b>Team member</b> , in-house funded research position.
Since October 2013	IFW Dresden, Germany	<b>Team member</b> , EU-RTN project FP7-PEOPLE-2013-ITN-607080 "VetriMetTech-Vitrified Metals Technologies and Applications in Devices and Chemistry"
Since February 2014	IFW Dresden, Germany	<b>Group Leader</b> in the frame of the ERC Advanced Grant "INTELHYB"- Intelligent Hybrid Structures.