



<http://www.bms2015.org>

# Call for Papers

## 9<sup>th</sup> IFAC Symposium on Biological and Medical Systems

31<sup>st</sup> August – 2<sup>nd</sup> September 2015, Berlin, Germany

### Important Dates

- ▶ **25th February 2015: Extended paper submission deadline (firm date)**
- ▶ **11th May 2015:** Notification of acceptance
- ▶ **8th June 2015:** Final paper submission
- ▶ **8th June 2015:** Early bird registration deadline

### Location / Venue

#### Location

The 9th IFAC Symposium on Biological and Medical Systems, BMS 2015, will be held in Berlin, Germany, from August 31<sup>st</sup> to September 2<sup>nd</sup>, 2015. Germany's capital is a vibrant cosmopolitan city, offering a wide range of cultural and touristic attractions. Berlin is a green city, with rivers and canals, and is particularly enjoyable in summer and early fall.

#### Venue

The triennial international symposium BMS 2015 takes place at the historical Charlottenburg campus of the **Physikalisch-Technische Bundesanstalt (PTB) Institute Berlin**, which is located within walking distance of Kurfürstendamm and Bahnhof Zoologischer Garten, right in the heart of Berlin's "City West" and yet only five kilometers south of the airport Berlin-Tegel.

The PTB Institute Berlin is not only a direct neighbor of TU Berlin campus but also in the close vicinity of famous landmarks like Ku'damm, Schloss Charlottenburg, Deutsche Oper, Tiergarten, the river Spree as well as the Zoo and Aquarium.



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### Scope of the Symposium

This International Federation of Automatic Control (IFAC) symposium will provide a forum for the presentation of new developments in the important interdisciplinary field of biological and medical systems. This involves the development and application of concepts, methods and techniques of modeling, informatics and control of complex biomedical and biological systems, as well as advances in medical technology.

The symposium will address problems in biomedicine, physiology and biology relating to:

- ▶ model formulation, experiment design, identification and validation, biosignal analysis and interpretation,
- ▶ developments in measurement technology and signal processing,
- ▶ tracer kinetic modeling using various imaging systems,
- ▶ biomedical system modeling, simulation and visualization,
- ▶ decision support and feedback control.

Application areas will include:

- ▶ cellular, metabolic, cardiovascular, neurosystems,
- ▶ healthcare management and delivery, disease control, critical care, ventilation,
- ▶ pharmacokinetics and drug delivery, decision support systems for the control of physiological and clinical variables,
- ▶ biomedical imaging systems,
- ▶ intensive and chronic therapy,
- ▶ control of voluntary movements,
- ▶ rehabilitation engineering including rehabilitation robotics,
- ▶ kinetic modeling and control of biological systems, artificial organs and biomechanical systems,
- ▶ quantification of physiological parameters for diagnosis assessment.

Any other contribution to the development of modeling and control in biomedical and biological systems will be welcome.

### Registration Fee

	Early	After 8 <sup>th</sup> June 2015
Student registration fee*	300€	300€
Regular registration fee**	450€	500€
Extra banquet ticket	80€	
Extra paper fee	250€	

\*/\*\* incl. all sessions, proceedings, three lunches, coffee breaks, banquet, welcome reception

\* incl. one paper upload, \*\* incl. two paper uploads

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- ▶ Biological and Medical Systems (TC 8.2)

Co-sponsoring TCs

- ▶ Modeling, Identification and Signal Processing (TC 1.1)
- ▶ Adaptive and Learning Systems (TC 1.2)
- ▶ Mechatronic Systems (TC 4.2)
- ▶ Robotics (TC 4.3)
- ▶ Control Education (TC 9.4)

### Other Co-Sponsors

- ▶ VDE society for biomedical engineering (DGBMT)
- ▶ TCs AUTOMED and Biosignals within the DGBMT
- ▶ VDI/VDE society for measurement and automatic control (GMA)
- ▶ Control Systems Group, Technische Universität Berlin
- ▶ Physikalisch-Technische Bundesanstalt Institute Berlin
- ▶ Innovation Center "Technologies for Health and Foods", Technische Universität Berlin
- ▶ Rehabilitation Robotics Group, Fraunhofer IPK, Berlin

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