

## Table of Contents

In: Petr Sojka (ed.): Towards a Digital Mathematics Library. Paris, France, July 7-8th, 2010. Masaryk University Press, Brno, Czech Republic, 2010. pp. VII--VIII.

Persistent URL: <http://dml.cz/dmlcz/702591>

## Terms of use:

© Masaryk University, 2010

Institute of Mathematics of the Academy of Sciences of the Czech Republic provides access to digitized documents strictly for personal use. Each copy of any part of this document must contain these *Terms of use*.



This paper has been digitized, optimized for electronic delivery and stamped with digital signature within the project *DML-CZ: The Czech Digital Mathematics Library* <http://project.dml.cz>

# Table of Contents

---

## I Towards a Digital Mathematics Library

---

Towards a Digital Mathematical Library: On the Road . . . . . 3  
*Petr Sojka (Masaryk University, Brno, Czech Republic)*

Mathematical Formulae Recognition and Logical Structure Analysis of  
Mathematical Papers . . . . . 7  
*Masakazu Suzuki (Kyushu University, Kyushu, Japan)*

---

## II Digitization Technologies and Platforms

---

EuDML—Towards the European Digital Mathematics Library . . . . . 11  
*Wojtek Sylwestrzak (University of Warsaw, Warsaw, Poland), José Borbinha (Instituto Superior Técnico, Lisbon, Portugal), Thierry Bouche (Université Joseph-Fourier, Grenoble, France), Aleksander Nowiński (University of Warsaw, Warsaw, Poland), Petr Sojka (Masaryk University, Brno, Czech Republic)*

Developing a Metadata Exchange Format for Mathematical Literature . . . 27  
*David Ruddy (Cornell University Library, Ithaca, New York, USA)*

Designing a Semantic Ground Truth for Mathematical Formulae . . . . . 37  
*Alan Sexton, Volker Sorge (University of Birmingham, Birmingham, UK), Masakazu Suzuki (Kyushu University, Kyushu, Japan)*

---

## III DML Building Experience

---

PDF Enhancements Tools for a Digital Library . . . . . 45  
*Radim Hatlapatka, Petr Sojka (Masaryk University, Brno, Czech Republic)*

Metadata Editing and Validation for a Digital Mathematics Library . . . . 57  
*Miha Filej (University of Ljubljana, Ljubljana, Slovenia), Michal Růžička, Martin Šárfy, Petr Sojka (Masaryk University, Brno, Czech Republic)*

Implementing Dynamic Visualization as an Alternative Interface to  
a Digital Mathematics Library . . . . . 63  
*Zuzana Nevěřilová (Masaryk University, Brno, Czech Republic)*

Data Enhancements in a Digital Mathematical Library . . . . . 69  
*Michal Růžička, Petr Sojka (Masaryk University, Brno, Czech Republic)*

---

## IV Digitization Reports

---

bdim: the Italian Digital Mathematical Library . . . . . 79  
*Vittorio Coti Zelati (Università degli Studi di Napoli "Federico II", Napoli, Italy)*

INSPIRE: Realizing the Dream of a Global Digital Library in  
High-Energy Physics . . . . . 83  
*Annette Holtkamp, Salvatore Mele, Tibor Šimko, Tim Smith (CERN, Geneva, Switzerland)*

---

## V Tools and Techniques

---

Mathematical Communication and Representation in a Virtual  
Learning Environment: A Case Study . . . . . 95  
*César Córcoles, Antonia Huertas (Open University of Catalonia, Barcelona, Spain)*

Producing MathML with Tralics . . . . . 105  
*José Grimm (Institut National de Recherche en Informatique et en Automatique, Sophia Antipolis, France)*

Symbol Declarations in Mathematical Writing: A Corpus Study . . . . . 119  
*Magdalena Wolska (Universität des Saarlandes, Saarbrücken, Germany),  
Mihai Grigore (Jacobs University, Bremen, Germany)*

**Subject Index** . . . . . 129

**Name Index** . . . . . 133

**Author Index** . . . . . 134