

Table of Contents

Scientific and Clinical Workflows

An Ontology-Driven Framework for Data Transformation in Scientific Workflows	1
<i>Shawn Bowers, Bertram Ludäscher</i>	

PROVA: Rule-Based Java-Scripting for a Bioinformatics Semantic Web . .	17
<i>Alexander Kozlenkov, Michael Schroeder</i>	

Process Based Data Logistics: a Solution for Clinical Integration Problems	31
<i>Stefan Jablonski, Rainer Lay, Christian Meiler, Sascha Müller</i>	

Ontologies and Taxonomies

Domain-Specific Concepts and Ontological Reduction within a Data Dictionary Framework	47
<i>Barbara Heller, Heinrich Herre, Kristin Lippoldt</i>	

A Universal Character Model and Ontology of Defined Terms for Taxonomic Description	63
<i>Trevor Paterson, Jessie B. Kennedy, Martin R. Pullan, Alan Cannon, Kate Armstrong, Mark F. Watson, Cédric Raguenaud, Sarah M. McDonald, Gordon Russell</i>	

On the Application of Formal Principles to Life Science Data: a Case Study in the Gene Ontology	79
<i>Barry Smith, Jacob Köhler, Anand Kumar</i>	

Indexing and Clustering

Index-Driven XML Data Integration to Support Functional Genomics . . .	95
<i>Ela Hunt, Evangelos Pafilis, Inga Tulloch, John Wilson</i>	

Heterogeneous Data Integration with the Consensus Clustering Formalism	110
<i>Vladimir Filkov, Steven Skiena</i>	

Integration Tools and Systems

LinkSuite TM : Formally Robust Ontology-Based Data and Information Integration	124
<i>Werner Ceusters, Barry Smith, James Matthew Fielding</i>	

<i>BioDataServer: An Applied Molecular Biological Data Integration Service</i>	140
<i>Sören Balko, Matthias Lange, Roland Schnee, Uwe Scholz</i>	
COLUMBA: Multidimensional Data Integration of Protein Annotations . . .	156
<i>Kristian Rother, Heiko Müller, Silke Trissl, Ina Koch, Thomas Steinke, Robert Preissner, Cornelius Frömmel, Ulf Leser</i>	
Integration Techniques	
On the Integration of a Large Number of Life Science Web Databases . . .	172
<i>Zina Ben Miled, Nianhua Li, Yang Liu, Yue He, Eric Lynch, Omran Bukhres</i>	
Efficient Techniques to Explore and Rank Paths in Life Science Data Sources	187
<i>Zoé Lacroix, Louiqa Raschid, Maria-Esther Vidal</i>	
Links and Paths through Life Science Data Sources	203
<i>Zoé Lacroix, Hyma Murthy, Felix Naumann, Louiqa Raschid</i>	
Pathway and Protein Interaction Data: From XML to FDM Database . . .	212
<i>Graham J.L. Kemp and Selpi</i>	
Author Index	221

Data Integration in the Life Sciences

First International Workshop, DILS 2004, Leipzig,

Germany, March 25-26, 2004, proceedings

Rahm, E. (Ed.)

2004, CCXXXVI, 226 p., Softcover

ISBN: 978-3-540-21300-0