Abstract—The First International Workshop on Model-Driven Software Migration brings together researchers and practitioners in the area of model-driven approaches supporting software migration. State-of-the-art techniques as well as real-world experiences are presented and discussed to stimulate further model-driven migration research activities.

I. BACKGROUND

Model-driven Software Development (MDSD) and Software Migration are two different approaches that had been under research separately. In recent years, researches found interesting analogies between both fields.

In software engineering, one of the key principles is abstraction, that is, focusing only on the important aspects while fading-out details [1]. Model-driven software development (MDSD) aims at modeling these important aspects at different levels of abstraction. This allows to design software, starting with the "big picture" (abstract level) and approach more concrete levels by adding more details to the models until the system is implemented (concrete level).

Software migration aims at converting an old system (legacy system) into a new technology without changing functionality [2]. This implies understanding, how the legacy system is working. For this purpose, legacy code must be leveraged into a higher level of abstraction in order to focus only on the important aspects.

At this point, model-driven software development and software migration meet. Migration projects can benefit from the vision of MDSD by abstracting legacy systems (reverse engineering), transform them and implement the migrated system (forward engineering).

However, both fields of research are not yet entirely understood. Neither is the combination of both fields examined very well. The MDSM workshop brings together latest research in the field of model-driven software migration approaches.

II. GOALS AND TOPICS

The MDSM workshop brings together researchers and practitioners in the area of model-driven approaches supporting software migration to present and discuss state-of-the-art techniques as well as real-world experiences to stimulate further model-driven migration research activities.

The scope of the MDSM workshop includes, but is not restricted to, the following topics:

- Modeling languages, query languages and transformation languages
- Domain Specific Languages for software migration
- Model-integration in repositories
- Model-driven architecture reconstruction or migration
- Model-driven code migration
- Software migration by transforming legacy code
- Model-driven software renovation
- Tools and methods for model-driven migration
- Design patterns for model-driven software migration
- Experience reports

III. PROGRAM

The MDSM workshop is held during the CSMR 2011 main conference on March 1, 2011. The full-day workshop consist of three thematically grouped sessions:

- one 90 minutes project session, presenting latest research projects in the field of model-driven software migration
- two 90 minutes paper sessions containing paper presentations with plenty of time for discussions.

IV. ACCEPTED PAPERS

The following four of seven submissions have been accepted by the program committee for presentation at the workshop. The proceedings of the workshop are published on CEUR (http://ceur-ws.org).
We ontologica-based links
i) basic facts about the structural
iii) The history of all programming languages
the usage of the APIs in open-source
Andy Schürr, Technische Universität Darmstadt, Germany
Romain Robbes, Universidad de Chile, Chile
Anthony Cleve, Institut National de Recherche en Informatique et en Automatique (INRIA) Lille, France
Wilhelm Hasselbring, Christian-Albrechts-Universität zu Kiel, Germany
Volker Riediger, Universität Koblenz-Landau, Germany
Jaques Klein, Université du Luxembourg
Eleni Stroulia, University of Alberta, Canada
Bernhard Rumpe, Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen, Germany
Dragang Gasevic, Athabasca University, Canada
Harry Sneed, Central European University Budapest, Hungary
Jürgen Ebert, Universität Koblenz-Landau, Germany
Steffen Becker, Universität Paderborn, Germany
Filippo Ricca, Università degli Studi di Genova, Italy
Rainer Gimnich, IBM Frankfurt, Germany
Harry Sneed, Central European University Budapest, Hungary

Our approach is evaluated by applying two concrete transformations to large open source projects. First, we migrate classical for loops to the new for-each style (introduced in Java 5). Second, we convert anonymous classes to closures (planned for Java 8). Furthermore, we discuss how tracing transformations allows to quantify the impact of planned extensions.

Oldevik, J., K. Olsen, G., Bröunner, U., and Bodsberg, N. R., “Model-Driven Migration of Scientific Legacy Systems to Service-Oriented Architectures”: We propose a model-driven and generative approach to specify and generate web services for migrating scientific legacy systems to service-oriented platforms. From a model specification of the system migration, we use code generation to generate web services and automate the legacy integration. We use a case study from an existing oil spill analysis application developed in Fortran and C++ to show the feasibility of the approach.

V. ORGANIZERS

A. Workshop Chairs
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- Volker Riediger, Universität Koblenz-Landau, Germany

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REFERENCES
