# CALL FOR PAPERS

# **Reed-Muller 2025**

# A Workshop on Function Representations and their Application

# June 4, 2025

## 09:00 - 12:00

# Room 267, Macdonald Engineering Building, McGill University

## 817 Sherbrooke St W, Montreal, Quebec, Canada

Preceding the International Symposium on Multiple-Valued Logic

The goal of the Reed-Muller Workshop is to provide a forum for researchers to exchange and discuss research ideas in the following and related areas:

- Spectral representation of switching functions
- Graph-based representations of switching functions: BDD, MDD, BMD, EVBDD, etc.
- EXOR-based representations
- Applications of the Reed-Muller transform, including circuit design, processing, etc.
- Implementation in silicon (ASICs, SoCs, FPGAs, PIC, QPIC)
- Representations and design methods related to emerging technologies: quantum informatics, reversible computing, nano-technology, molecular scale computing etc.
- Cryptographically-significant functions, PQC, and other applications in cybersecurity
- Non-linear functions: properties, classes, bent functions, etc.

#### **Important Dates**

- Full paper submission: March 12, 2025
- Notification of acceptance: April 23, 2025
- Camera ready paper due: May 21, 2025
- Workshop: June 4, 2025

#### **Invited Speaker**

The workshop will include an invited address by Prof. Zeljko Zilic, Integrated Microsystems Laboratory, Department of Electrical & Computer Engineering, McGill University

Extending Reed-Muller Transforms for Imprecise Computing, Machine Learning, and Cyber-Physical Systems

#### Paper Submission

Original research, tutorial or survey papers are invited for submission using Easy Chair via <u>https://easychair.org/my/conference?conf=rm2025</u>.

Please send papers using the LNCS template. Papers should not exceed 16 pages. Templates for LaTeX and Microsoft Word can be found <u>here</u>.

**NOTE**: The Workshop papers will only be distributed online to Workshop attendees. There will be no paper proceedings. The copyright remains with the authors.

#### **Special Journal Issue**

Selected papers may be invited for a special issue of the journal *Information Technology* - a computer science journal existing since 1959! The reviews provided for the workshop contribution will be used for the first iteration of the journal articles.

Registration: Details to be announced. There will be no registration fee.

#### **Program Committee**

- Jon T. Butler, Naval Postgraduate School, United States
- Rolf Drechsler, University of Bremen, Germany
- D. Michael Miller, University of Victoria, Canada
- Claudio Moraga, Technical University of Dortmund, Germany
- Tsutomu Sasao, Meiji University, Japan
- Mitchell A. Thornton, Southern Methodist University, United States PC Chair

#### Information regarding the workshop will be available here, or contact:

D. Michael Miller, RM2025 Workshop Chair, <u>mmiller@uvic.ca</u> Mitchell A. Thornton, RM2025 Program Committee Chair, <u>mitch@smu.edu</u>

The RM workshop has been held biannually since 1993

RM 2023 Matsue, Japan, (Hybrid) RM 2021 Online RM 2019 Fredericton, Canada RM 2017 Novi Sad, Serbia RM 2015 Waterloo, Canada RM 2013 Toyama, Japan RM 2011 Tuusula, Finland RM 2009 Naha, Okinawa, Japan RM 2007 Oslo, Norway RM 2005 Tokyo, Japan RM 2003 Trier, Germany RM 2001 Starkville, MS, USA RM 1999 Victoria, Canada RM 1997 Oxford, UK RM 1995 Chiba, Japan RM 1993 Hamburg, Germany

Details of previous workshops are available http://www.lsi-cad.com/RM/RM\_history.html