# TABLE OF CONTENTS

## FOCUS

### PROGRAMMING LANGUAGES

33 Guest Editors’ Introduction

Programming Languages
Laurence Tratt and Adam Welc

35 Language Design with the Spoofax Language Workbench

Guido H. Wachsmuth, Gabriël D.P. Konat, and Eelco Visser

44 Scripting Multiple CPUs with Safe Data Sharing

Alexandre Skyrme, Noemi Rodriguez, and Roberto Ierusalimschy

52 Programming with Implicit Flows

Guido Salvaneschi, Mira Mezini, and Patrick Eugster

60 Are We There Yet?

Simple Language Implementation Techniques for the 21st Century

Stefan Marr, Tobias Pape, and Wolfgang De Meuter

68 Evolution of Software Systems with Extensible Languages and DSLs

Sebastian Erdweg, Stefan Fehrenbach, and Klaus Ostermann

76 Interview

An Interview with Gilad Bracha

Laurence Tratt and Adam Welc

## FEATURES

80 Achieving and Maintaining CMMI Maturity Level 5 in a Small Organization

Davide Falessi, Michele Shaw, and Kathleen Mullen

87 Scale and Responsiveness in Large-Scale Software Development

Helena Holmström Olsson, Anna Börjesson Sandberg, Jan Bosch, and Hiva Alahyari

94 Is Your Upgrade Worth It? Process Mining Can Tell

Michiel van Genuchten, Ronny Mans, Hajo Reijers, and Daniel Wismeijer