Parallelizing dynamic sequential programs using polyhedral process networks
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Dmitry Nadezhkin was born on 15th of July, 1981 in Arzamas-16, USSR. In 2003, he received his Master Degree in Mathematics from the Lomonosov Moscow State University. During his M.Sc. study, Dmitry Nadezhkin worked at designing software targeting high-performance computing systems. In 2006, Dmitry joined the Leiden Embedded Research Center (LERC) which is part of the Leiden Institute of Advanced Computer Science (LIACS) at Leiden University where he was appointed as a research assistant (Ph.D. student). He was involved in the NEVA project which deals with Networks on Chips Design Driven by Video and Distribution Applications, and conducted research in the area of automatic parallelization of program code with dynamic constraints. As a part of his work, he developed a FIFO library that allows to run Polyhedral Process Networks on the IBM Cell multiprocessor platform. The research work culminated in the writing of this Ph.D. dissertation in 2012.
List of Publications


• Dmitry Nadezhkin, Hristo Nikolov, Todor Stefanov: “Translating Affine Nested Loop Programs with Dynamic Loop Bounds into Polyhedral Process Networks” In Proc. 8th IEEE Workshop on Embedded Systems for Real-Time Multimedia (ESTIMedia’10), Scottsdale, Arizona USA, October 24-29, 2010. WINNER of the 2010 ESTIMedia Best Paper Award!

