Linköping Studies in Science and Technology, Dissertation No. 1333

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# Errata

for thesis

### Meta-Languages and Semantics for Equation-Based Modeling and Simulation

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- Page 66, first paragraph: "different form of *pattern matching*" should be "different form of *pattern matching* on type tags at run-time".
- Page 66, last paragraph of section "Overloading": Sentence "Modelica is currently not supporting..." should be "Modelica is from version 3.1 (released May 2009) supporting overloading of operators."
- Page 78, Section 6.2.1: The term *name* means a sequence of one or more identifiers separated with dots, e.g., `x.y.z`, `M.x`, or just `x`
- Page 79, Figure 6.2: *lnum* is a literal real number.
- Page 97, paragraph before 7.1.1: Value `52.10` should be `71.`
- Page 106, the line before Definition 7.2.3: $e_1$ should be $e$.
- Page 131, second example: `op e e2` should be `op e1 e2`.
- Page 143, last paragraph: (L-APPM2) should be (L-APPM5).
- Page 150, proof of Lemma 10.7 (Substitution): "derivation of $\Gamma \vdash e : \tau$" should be "derivation of the statement $\Gamma, y : \tau' \vdash e : \tau$".
- Page 157, rule (RTC-REFL): $e|\, U \longrightarrow^* e'|\, U'$ should be $e|\, U \longrightarrow^* e|\, U$.
- Page 158, missing case "$FV(\langle \tau_2 \Leftarrow \tau_1 \rangle e) = FV(e)$" of the definition of free variables and case "$[x \mapsto e]\langle \tau_2 \Leftarrow \tau_1 \rangle e_1 = \langle \tau_2 \Leftarrow \tau_1 \rangle ([x \mapsto e]e_1)$" of the definition of substitution.
- Page 171, first paragraph: "component `M`" should be "component `SC`".
- Page 194, end of second paragraph: Sentence "We should again note..." should be removed.
- Page 196: Performance tests were executed on a MacBook, 2.2 GHz Intel Core 2 Duo, 4 GB 667 MHz DDR2 SDRAM running Mac OS X version 10.5.8.
- Page 217. Missing operator precedence and associativity. All operators are left associative, except `"^"` and `".^"` that are right associative. Operators `"U-"` and `"U-."` represent the unary minus for `"-"` and `".-"` respectively. Terminal `with` is used to resolve an ambiguity in the grammar. Operators are listed (comma separated) in precedence order (highest to lowest). Operators within parentheses have the same precedence: ( `"U-" "U-." "--" "--."` ), ( `"^" ".^"`), `"mod"`,

("*" "/" "*." "/."), ("+" "-" "+." "-."), ("<" "<=" ">" ">=" "!=" "<." "<=." ">." ">=." "!=."), ("=" "~=" "++"), "!", "&&", "||", ";", "|", "with".

- Page 220, production rule pat_op: Text "pat_op OP pat_op" should be "pat_op operator pat_op".
- Page 223, first item in comments: lcase$(v, x_1, x_1, e_1, e_2)$ should be lcase$(v, x_1, x_2, e_1, e_2)$.
- Page 250, item [42]: "D. E. Comer" should be "Peter J. Denning, Douglas E. Comer"
- Page 253, item [80]: "Gilles Kah" should be "Niel D. Jones, Peter Sestoft, and Harald Søndergaard".