Errata

We list typos and errors that have been corrected in this version since the thesis was submitted. Most of the corrections were single line typos. All corrections were made to prevent reader confusion, as opposed to a real revision of the text. The original version of the thesis (that was submitted to MIT) can be had by anonymous ftp from theory.lcs.mit.edu and retrieving /pub/george/georgephd1.ps and /pub/george/georgephd2.ps. The original tex files are also available on request.

- On Page 16, line 20, the word "principle" was substituted for "law".
- On Page 28, line 17, the word "protocol" was substituted for "protocols".
- On Page 29, line 9 from bottom, an extra "the" before "local" was deleted.
- On Page 31, line 4 from bottom, the word "chapter" was substituted for "thesis".
- On Page 68, line 9 from bottom the phrase in parenthesis was added.
- On Page 99, line 8 from bottom, an extra comma was removed.
- On Page 103, line 8, the word "to" was added after "equal".
- On Page 118, line 3 of first proof, the word "Suppose" was added to the start of line and a semicolon added.
- On Page 125, line 19, the word "change" was substituted for "changes".
- On Page 127, end of 3rd para, the sentence "But such actions are also internal actions of $\mathcal{N}^+$" was changed to "But such actions are not actions of $\mathcal{N}$".
- On Page 136, line 3, the phrase "can be true at the same time" was changed to "is true".
- The format of *Request* was changed to REQUEST to make it consistent with the use of small capitals for actions.
- On Page 157, last line and Page 158 first line, $\text{FREE}_{u,v}(m)$ was changed to "$\text{FREE}_{u,v}$".

- On Page 165, line 5 from bottom, the word "protocol" was substituted for "problem".
- On Page 167, line 14, the word "create" was substituted for "creates".
- On Page 167, in the PROPAGATE macro, the parameter "u" was changed to "w" to avoid confusion with a dummy variable "u" used later.
- On Page 171, line 11, the word "ElseIf" was substituted for "If".
- On Page 175, line 13 from bottom, "rooted at x" was changed to "rooted at u".
- On Page 183, line 9 from bottom, *signalbit* was changed to $signalbit_u$.
- On Page 188, line 5 and 16 from bottom, "of s_i" was changed to "after s_i".
- On Page 189, lines 4,5,6, "timely" was changed to "timeliness".
- On Page 190, line 15 from bottom, $\textsc{Freem}_{u.v}$ was changed to $\textsc{Freem}_{u,v}$.
- On Page 191, line 8, a_j was inserted after "action".
- On Page 193, line 10 from bottom, $freem_{v,u}$ was changed to $freem_v[u]$.
- On Page 195, line 12, $\mathcal{B}$ was changed to $\mathcal{A}$ and $\mathcal{B}$.
- On Page 198, line 4 from bottom, "an" was changed to "another".
- On Page 207, last line, indentation moved to left and an extra "=" was removed.
- On Page 219, 3rd para, 4th line, "tp" was changed to "to".
- On Page 224, line 3, $= nil$ was changed to $= z$.
- On Page 234, line 3, "obtains" was changed to "obtain".
- On Page 240 line 12 and 13, Page 241, line 2 and 3: the phrase "equal to" was removed.
- On Page 244 line 11, "will ensures" was changed to "ensures".
- On Page 248, comments were indented to the right for consistency.

- On Page 250, an extra blank line in code was removed.
- On Page 259, line 7 from bottom "describe" was changed to "described".
- On Page 299, on a number of lines, "a a" was changed to "a".
- On Page 300, lines 3, 11 and 14, "four" was changed to "five".
- On Page 300, lines 13, the phrase $\Sigma - \text{ACK}$ was added.
- On Page 300, last two lines were added.
- On Page 301, 3rd bullet of proof, end of para, s was changed to s'.
- On Page 302, footnote was added for clarity.
- On Page 303: on line 4 "remains *false*" was changed to "remains *true*".
- On Page 304: on line 3 s' was changed to s; also on line 5, "RR transition" was changed to "RR or RA transition"
- On Page 305: lines 9-11 were added.
- On Page 305: Termination Lemma statement, second line, "of" was changed to "after".
- On Page 307: line 13, an extra "the" was deleted.
- On Page 308: line 13, "states" was changed to "state".
- On Page 310, line 11 and 14: "SEND" was changed to "SENDM".
- On Page 311, line 5 from bottom: "$mode$" was changed to "$mode(u)$".
- On Page 313, line 15: $[s_k, s_l]$ was changed to $[s_j, s_l]$.
- On Page 314, line 16: extra "with" was added.
- On Page 315, lines 1,2 and 3: "a_j" was changed to "$a_{j'}$".
- On Page 316, line 7 : "$status(v)$" was changed to "$status(u)$".
- On Page 317, last line: $\text{FREEM}_{v.u}(m')$ was changed to $\text{FREEM}_{v.u}$.