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| Software Engineering of Distributed Systems, KTH |
| Distributed Systems Advanced Homework 4 |
| Read-Impose Write-Consult and Read-Impose Write-Consult-Majority |

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| Shanbo Li and Sike Huang  2/24/2008 |

# Exercise 1. Read-Impose Write-Consult

The (N, N) atomic register in fail-stop model is implemented by “Read-Impose Write-Consult” algorithm given in tutorial 4, however there is a small fault in fuction “upon exists r”

14: upon exists r such that correct \_ writeSet[r] do

15: if (reading[r] = true) then

16: reading[r] := false;

17: trigger hnn-aRegReadReturn j r, readval[r] i;

18: else

19: trigger hnn-aRegWriteReturn j r i;

20: end if

21: end

Between line 14 and line 15, we should add one more statement:

writeSet[r] := ∅;

# Exercise 2: Read-Impose Write-Consult-Majority

All-Ack Uniform Reliable Broadcast implements the uniform version of reliable broadcast in the