## Research Report

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## review of the issues

- Test NLR with more programs with imperfect loop nests and complex loop boundaries
- Integrate NLR to PoCC (adding one more source code to the Collection)
- Addressing IMPACT 2014 final version issues
- Aim to get a paper (on what topic?) out in a CONFERENCE by March 1st, 2014.
- Energy Tuning Project
  - Lulesh benchmark using PPCG
  - PNNL benchmark

## Progress & Problems

- Reconstruct loops and array accesses
  - Tested more imperfect loops (tested 2mm,
    3mm in addition to gemm benchmark)
  - Triangle Loop Iterators (0<i<N; i<j<N) still fails (e.g. Covariance)
- Address IMPACT'14 reviewers' comments
  - Did not figure out why certain optimization caused power surge but still trying

## The plan

- Make NLR work with triangle loop boundaries
- Integrate NLR to PoCC (adding one more source code to the Collection)
- Addressing IMPACT 2014 final version issues
- Aim to get a paper (on what topic?) out in a CONFERENCE by March 1st, 2014.
- Energy Tuning Project
  - Lulesh benchmark using PPCG
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