

**Input:** Call graph

**Output:** Generated C code

- 1: Initialize function analysers to perform read-write analysis, return analysis and live variable analysis.
- 2: **for** each  $f$  function in post order of call graph **do**
- 3:     **for** each  $code$  in  $f$  **do**
- 4:         **for** each  $var$  in right-hand-side of code **do**
- 5:              $isCopyEliminated = \text{COPY\_ELIMINATION\_CHECK}(var, code, f)$
- 6:             **if**  $isCopyEliminated = true$  **then**
- 7:                 Generate the copy-reduced code
- 8:                 Update the read-write and return sets with  $var$
- 9:             **else**
- 10:                 Generate the naive code
- 11:             **end if**
- 12:         **end for**
- 13:     **end for**
- 14: **end for**