Papers on Compiler Optimizations: Analysis and Transformations (1952-1994)

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Title	Venue Type	Venue Name	Type	Year	Sources
The problem of simplifying truth functions [9]	T&F	AMM	J	1952	O
Minimization of Boolean functions [10]	Bell Labs	Bell System Tech. J.	J	1956	O
An algorithm for translating Boolean expressions [11]	ACM	JACM	J	1962	S
High speed compilation of efficient object code [12]	ACM	CACM	J	1965	D
Peephole optimization [13]	ACM	CACM	J	1965	E
Program optimization [14]	-	PP	C	1966	A, D, E, M, O, S
Index Register Allocation [15]	ACM	JACM	J	1966	E
Analysis of Programs for Parallel Processing [16]	IEEE	TC (TEC)	J	1966	O
Object code optimization [17]	ACM	CACM	J	1969	A, D, E
Local optimizations [18]	ACM	PLDI (SCO)	C	1970	E
Detection and parallel execution of independent instructions [19]	IEEE	TCO	J	1970	S
Global common subexpression elimination [20]	ACM	PLDI (SCO)	C	1970	D, E, M
The Generation of Optimal Code for Arithmetic Expressions [21]	ACM	JACM	J	1970	D, E, M
Control flow analysis [22]	ACM	PLDI (SCO)	C	1970	D, E
A Basis for Program Optimization [23]	IFIP	NH	C	1971	A, D, E, M, O, S
A catalogue of optimizing transformations [24]	-	PH	C	1972	A, D, E, M, O, S
Flow graph reducibility [25]	ACM	STOC	C	1972	D
Use-definition chains with applications [26]	Elsevier	COLA (COMLAN)	C	1972	E
A global flow analysis algorithm [27]	T&F	JCM	J	1972	E
Safety of code motion [28]	T&F	JCM	J	1972	O
On the Number of Operations Simultaneously Executable in Fortran-Like Programs and Their Resulting Speedup [29]	IEEE	TCO	J	1972	D, O
Testing flow graph reducibility [30]	ACM	STOC	C	1973	A
A unified approach to global program optimization [31]	ACM	POPL	C	1973	A, D, E, M, O, S
Fast algorithms for the elimination of common subexpressions [32]	Springer	Acta Inf.	J	1973	A, D, E, O
Interprocedural Analysis and the Information derived by it [33]	Springer	Prog. Meth.	J	1974	-
Register allocation via usage counts [34]	ACM	CACM	J	1974	A
Analysis of structured programs [35]	ACM	STOC	C	1974	D
Characterizations of Reducible Flow Graphs [36]	ACM	JACM	J	1974	D, E

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Title	Venue Type	Venue Name	Type	Year	Sources
The parallel execution of DO loops [37]	ACM	CACM	J	1974	D, O
Interprocedural Data Flow Analysis [38]	-	IFIP	J	1974	D, O
Application of lattice algebra to loop optimization [39]	ACM	POPL	C	1975	-
Program optimization - theory and practice [40]	ACM	PLDI (SCC)	C	1975	-
Time and parallel processor bounds for linear recurrence systems [41]	IEEE	TCO	J	1975	S
A simple algorithm for global data flow analysis problems [42]	SIAM	SICOMP	J	1975	A, E, O
Program improvement by source to source transformation [43]	ACM	POPL	C	1976	-
A program data flow analysis procedure [44]	ACM	CACM	J	1976	A
Recursion analysis for compiler optimization [45]	ACM	CACM	J	1976	O
Optimal Code Generation for Expression Trees [46]	ACM	JACM	J	1976	A, D, E
A Fast and Usually Linear Algorithm for Global Flow Analysis [47]	ACM	JACM	J	1976	E, O
Code generation for expressions with common subexpressions [48]	ACM	POPL	C	1976	E, S
Global data flow analysis and iterative algorithms [49]	ACM	JACM	J	1976	E, O
Compiler Analysis of the Value Ranges for Variables [50]	IEEE	TSE	J	1977	-
On Live-Dead Analysis for Global Data Flow Problems [51]	ACM	JACM	J	1977	A
Symbolic evaluation and the global value graph [52]	ACM	POPL	C	1977	A
High-level data flow analysis [53]	ACM	CACM	J	1977	A
Abstract interpretation [54]	ACM	POPL	C	1977	D
An algorithm for reduction of operator strength [55]	ACM	CACM	J	1977	E
A transformation system for developing recursive programs [56]	ACM	JACM	J	1977	S
Arithmetic shifting considered harmful [57]	ACM	SIGPLAN Notices	J	1977	S
Monotone data flow analysis frameworks [58]	Springer	Acta Inf.	J	1977	A, D, E, O
Program Improvement by Source-to-Source Transformation [59]	ACM	CACM	J	1977	D, O
An analysis of inline substitution for a structured programming language [60]	ACM	CACM	J	1977	M, S
Program Optimization Using Invariants [61]	IEEE	TSE	J	1978	-
A new method for compiler code generation [62]	ACM	POPL	C	1978	D
A practical interprocedural data flow analysis algorithm [63]	ACM	CACM	J	1978	A, D, E, O
Data Flow Analysis for Procedural Languages [64]	ACM	JACM	J	1979	A
Constructing the Call Graph of a Program [65]	IEEE	TSE	J	1979	O
Data flow languages [66]	IEEE	MARK	W	1979	S
Time and parallel processor bounds for Fortran-like loops [67]	IEEE	TCO	J	1979	S
Unrolling loops in Fortran [68]	Wiley	SPE	J	1979	S
A fast algorithm for finding dominators in a flowgraph [69]	ACM	TOPLAS	J	1979	A, E, M, O
An efficient way to find the side effects of procedural calls and the aliases of variables [70]	ACM	POPL	C	1979	A, D, E, S
Global optimization by suppression of partial redundancies [71]	ACM	CAMC	J	1979	A, D, E, O, S
Predicting the effects of optimization on a procedure body [72]	ACM	PLDI (SCC)	C	1979	E, S
Structural analysis: A new approach to flow analysis in optimizing compilers [73]	Elsevier	COLA (COMLAN)	C	1980	A
The design and application of a retargetable peephole optimizer [74]	ACM	TOPLAS	J	1980	E
Data flow supercomputers [75]	IEEE	Computer	J	1980	S
Program optimization and parallelization using idioms [76]	ACM	POPL	C	1980	-
High-speed multiprocessors and compilation techniques [77]	IEEE	TCO	J	1980	S
A composite algorithm for strength reduction and code movement optimization [78]	Springer	ACIS	J	1980	E
Interprocedural data flow analysis in the presence of pointers, procedure variables, and label variables [79]	ACM	POPL	C	1980	A, E, O
Deciding Linear Inequalities by Computing Loop Residues [80]	ACM	JACM	J	1981	D
A precise inter-procedural data flow algorithm [81]	ACM	POPL	C	1981	O, S
Register allocation via coloring [82]	Elsevier	COLA (COMLAN)	C	1981	A, D, E, O, S

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Title	Venue Type	Venue Name	Type	Year	Sources
Reduction of operator strength [83]	NJ	Program flow analysis	J	1981	A, E, S
Dependence graphs and compiler optimizatlons [84]	ACM	POPL	C	1981	O, S
On the performance enhancement of paging systems through program analysis and transformations [85]	IEEE	TCO	J	1981	D, S
Using Peephole Optimization on Intermediate Code [86]	ACM	TOPLAS	J	1982	-
Optimizing delayed branches [87]	ACM	MICRO	W	1982	D
A composite hoisting-strength reduction transformation for global program optimization part i [88]	T&F	JCM	J	1982	E
Optimization of range checking [89]	ACM	PLDI (SCC)	C	1982	E
Register allocation and spilling via graph coloring [90]	ACM	PLDI	C	1982	A, D, E, M, O, S
Experience with the SETL optimizer [91]	ACM	TOPLAS	J	1983	S
Postpass Code Optimization of Pipeline Constraints [92]	ACM	TOPLAS	J	1983	A, E
Conversion of control dependence to data dependence [93]	ACM	POPL	C	1983	O, S
Code selection through object code optimization [94]	ACM	TOPLAS	J	1984	-
Register allocation and exhaustive peephole optimization [95]	Wiley	SPE	J	1984	E
Automatic generation of peephole optimizations [96]	Springer	CC	C	1984	E
Analysis of interprocedural side effects in a parallel programming environment [97]	Springer	ICSP	C	1984	O
Polyvariant mixed computation for analyzer programs [98]	Springer	Acta Inf.	J	1984	O
Stream processing [99]	ACM	LFP	C	1984	O
A hierarchical basis for reordering transformations [100]	ACM	POPL	C	1984	O
Register allocation by priority-based coloring [101]	ACM	PLDI (SCC)	C	1984	A, E, O
Automatic loop interchange [102]	ACM	PLDI (SCC)	C	1984	O, S
Efficient computation of flow insensitive interprocedural summary information [103]	ACM	PLDI (SCC)	C	1984	A, O
Program transformations in a denotational setting [104]	ACM	TOPLAS	J	1985	-
On linearizing parallel code [105]	ACM	POPL	C	1985	O
Distributed execution of functional programs using serial combinators [106]	IEEE	TCO	J	1985	S
Strictness analysis-a practical approach [107]	Springer	FPCA	C	1985	S
A linear algorithm for finding dominators in flow graphs and related problems [108]	ACM	STOC	C	1985	E, M, O
Advanced compiler optimizations for supercomputers [109]	ACM	CACM	J	1986	-
Efficient compilation of linear recursive functions into object level loops [110]	ACM	PLDI (SCC)	C	1986	-
The impact of interprocedural analysis and optimization in the Rn programming environment [111]	ACM	TOPLAS (LOPES)	C	1986	-
Efficient instruction scheduling for a pipelined architecture [112]	ACM	PLDI (SCC)	C	1986	A
Efficient symbolic analysis of programs [113]	ACM	JCSS	J	1986	A
Graph-Based Algorithms for Boolean Function Manipulation [114]	IEEE	TC	J	1986	D
Loops skewing: The wavefront method revisited [115]	Springer	JPP	J	1986	O
Highly concurrent scalar processing [116]	ACM	CAN	J	1986	O
Multiplication by integer constants [117]	Wiley	SPE	J	1986	S
Global register allocation at link time [118]	ACM	PLDI	C	1986	A, E
Interprocedural constant propagation [119]	ACM	PLDI	C	1986	A, D, E, O, S
Interprocedural optimization: eliminating unnecessary recompilation [120]	ACM	CC	C	1986	A, E, O
Interprocedural dependence analysis and parallelization [121]	ACM	PLDI	C	1986	O, S
Effectiveness of a machine-level, global optimizer [122],	ACM	PLDI (SCC)	C	1986	A, E
Direct parallelization of call statements [123]	ACM	PLDI (SCC)	C	1986	O, S

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Title	Venue Type	Venue Name	Type	Year	Sources
Code motion of control structures in high-level languages [124]	ACM	POPL	C	1986	E, M
Automatic inference and fast interpretation of peephole optimization rules [125]	Wiley	SPE	J	1987	E
Compiler Algorithms for Synchronization [126]	IEEE	TCO	J	1987	O
Automatic decomposition of scientific programs for parallel execution [127]	ACM	POPL	C	1987	O
Guided Self-Scheduling: A Practical Scheduling Scheme for Parallel Supercomputers [128]	IEEE	TCO	J	1987	S
Loop coalescing: A compiler transformation for parallel machines [129]	ACM	ICPP	C	1987	S
Strategies for cache and local memory management by global program transformation [130]	Springer	ICS	C	1987	S
The program dependence graph and its use in optimization [131]	ACM	TOPLAS	J	1987	A, E, M, O
Automatic translation of Fortran programs to vector form [132]	ACM	TOPLAS	J	1987	D, O, S
Safety consideration for storage allocation optimizations [133]	ACM	PLDI	C	1988	-
Efficient and correct execution of parallel programs that share memory [134]	ACM	TOPLAS (LOPES)	C	1988	-
On the control dependence in the program dependence graph [135]	ACM	CSC	C	1988	-
Resource requirements of dataflow programs [136]	ACM	ISCA	C	1988	-
Incremental data flow analysis via dominator and attribute update [137]	ACM	POPL	C	1988	-
An efficient approach to data flow analysis in a multiple pass global optimizer [138]	ACM	PLDI	C	1988	A
A solution to a problem with Morel and Renvoise's "Global optimization by suppression of partial redundancies" [139]	ACM	TOPLAS	J	1988	E
Efficient computation of flow-insensitive interprocedural summary information—a correction [140]	ACM	SIGPLAN Notices	J	1988	O
Dependence of multi-dimensional array references [141]	ACM	ICS	C	1988	O
The importance of direct dependences for automatic parallelization [142]	ACM	ICS	C	1988	O
Introducing symbolic problem solving techniques in the dependence testing phases of a vectorizer [143]	ACM	ICS	C	1988	O
Generating sequential code from parallel code [144]	ACM	SC	C	1988	O
CRegs: a new kind of memory for referencing arrays and pointers [145]	ACM	ICS	C	1988	-
Advanced loop optimizations for parallel computers [146]	ACM	ICS	C	1988	S
An introduction to a formal theory of dependence analysis [147]	Springer	JSC	J	1988	S
Analysis of interprocedural side effects in a parallel programming environment [148]	ACM	ICS	C	1988	S
Array expansion [149]	ACM	ICS	C	1988	S
Loop quantization: A generalized loop unwinding technique [150]	ACM	JPDC	J	1988	S
Supernode partitioning [151]	ACM	PLDI	C	1988	S
A fast algorithm for code movement optimisation [152]	ACM	PLDI	C	1988	A, E
Compiling programs for distributed-memory multiprocessors [153]	Elsevier	JSC	J	1988	O, S
Optimal loop parallelization [154]	ACM	PLDI	C	1988	A, E, M, S
Software pipelining: an effective scheduling technique for VLIW machines [155]	ACM	PLDI	C	1988	D, E
The program summary graph and flow-sensitive interprocedual data flow analysis [156]	ACM	PLDI	C	1988	A, O
A framework for determining useful parallelism [157]	ACM	ICS	C	1988	O, S
An overview of the PTRAN analysis system for multiprocessing [158]	Elsevier	JPDC	J	1988	D, S
Efficient interprocedural analysis for program parallelization and restructuring [159]	ACM	PPoPP (PPEALS)	C	1988	O, S
Compiling issues for supercomputers [160]	ACM/IEE	SC	C	1988	O, S

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Title	Venue Type	Venue Name	Type	Year	Sources
Minimizing register usage penalty at procedure calls [161]	ACM	PLDI	C	1988	A, S
Estimating interlock and improving balance for pipelined architectures [162]	Elsevier	JPDC	J	1988	O, S
Global value numbers and redundant computations [163]	ACM	POPL	C	1988	E, O
Perfect pipelining: A new loop parallelization technique [164]	Springer	ESOP	C	1988	A, S
Code scheduling and register allocation in large basic blocks [165]	ACM	SC	C	1988	A, E
Interprocedural side-effect analysis in linear time [166]	ACM	PLDI	C	1988	A, E, O
A technique for summarizing data access and its use in parallelism enhancing transformations [167]	ACM	PLDI	C	1989	-
Interprocedural analysis vs. procedure integration [168]	Elsevier	IPL	J	1989	-
Unified management of registers and cache using liveness and cache bypass [169]	ACM	PLDI	C	1989	A
A new algorithm for composite hoisting and strength reduction optimisation [170]	T&F	JCM	J	1989	E
Interprocedual data flow testing [171]	ACM	SEN	C	1989	-
Program optimization for instruction caches [172]	ACM	ASPLOS	C	1989	A
Dependence analysis for pointer variables [173]	ACM	PLDI	C	1989	E
The program dependence graph and vectorization [174]	ACM	POPL	C	1989	O
Achieving high instruction cache performance with an optimizing compiler [175]	ACM	ISCA	C	1989	S
Evaluating the performance of four snooping cache coherency protocols [176]	IEEE	ICSA	C	1989	S
Scans as primitive parallel operations [177]	IEEE	TCO	J	1989	S
Code generation using tree matching and dynamic programming [178]	ACM	TOPLAS	J	1989	A, D, E, M
Register allocation via clique separators [179]	ACM	PLDI	C	1989	A, E
Fast interprocedual alias analysis [180]	ACM	POPL	C	1989	A, E, O, S
Coloring heuristics for register allocation [181]	ACM	PLDI	C	1989	A, E, O
More iteration space tiling [182]	ACM/IEE	SC	C	1989	A, S
Data dependence analysis on multi-dimensional array references [183]	ACM	ICS	C	1989	O, S
Spill code minimization techniques for optimizing compliers [184]	ACM	PLDI	C	1989	A, E
Customization: Optimizing compiler technology for SELF, a dynamically-typed OOP language [185]	ACM	PLDI	C	1989	O, S
An efficient method of computing static single assignment form [186]	ACM	POPL	C	1989	A, O
The value flow graph: A program representation for optimal program transformations [187]	Springer	ESOP	C	1990	-
Compiler techniques for data partitioning of sequentially iterated parallel loops [188]	ACM	SC	C	1990	-
Vectorization of tree traversals [189]	Elsevier	JCP	J	1990	-
Loop displacement: an approach for transforming and scheduling loops for parallel execution [190]	ACM	SC	C	1990	-
Experience with interprocedural analysis of array side effects [191]	ACM	SC	C	1990	-
An approach to ordering optimizing transformations [192]	ACM	PPoPP	C	1990	A
Register allocation across procedure and module boundaries [193]	ACM	PLDI	C	1990	A
Region Scheduling: An Approach for Detecting and Redistributing Parallelism [194]	IEEE	TSE	J	1990	E
Constructing the procedure call multigraph [195]	IEEE	TSE	J	1990	O
On the perfect accuracy of an approximate subscript analysis test [196]	ACM	CAN	J	1990	O
Structured dataflow analysis for arrays and its use in an optimizing compiler [197]	Wiley	Software: Practice and Experience	J	1990	O

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Title	Venue Type	Venue Name	Type	Year	Sources
Compilation of Haskell array comprehensions for scientific computing [198]	ACM	PLDI	C	1990	S
How to read floating point numbers accurately [199]	ACM	PLDI	C	1990	S
How to print floating-point numbers accurately [200]	ACM	PLDI	C	1990	S
Profile guided code positioning [201]	ACM	PLDI	C	1990	S
Updating distributed variables in local computations [202]	Wiley	SPE	J	1990	S
An interval-based approach to exhaustive and incremental interprocedural data-flow analysis [203]	ACM	TOPLAS	J	1990	E, O
The priority-based coloring approach to register allocation [204]	ACM	TOPLAS	J	1990	A, D, E, S
Improving register allocation for subscripted variables [205]	ACM	PLDI	C	1990	A, E, M, O, S
Analysis of pointers and structures [206]	ACM	PLDI	C	1990	A, E
Loop distribution with arbitrary control flow [207]	ACM	PLDI	C	1990	O, S
Graph coloring register allocation for processors with multi-register operands [208]	ACM	PLDI	C	1990	A, E
A data locality optimizing algorithm [209]	ACM	PLDI	C	1991	-
On optimal parallelization of arbitrary loops [210]	Elsevier	JPDC	J	1991	-
On the adequacy of dependence-based representations for programs with heaps [211]	Springer	TACS	C	1991	-
Automatic construction of sparse data flow evaluation graphs [212]	ACM	POPL	C	1991	-
Compiler optimizations for Fortran D on MIMD distributed-memory machines [213]	ACM	SC	C	1991	-
Register allocation via hierarchical graph coloring [214]	ACM	PLDI	C	1991	A
Circular scheduling: a new technique to perform software pipelining [215]	ACM	PLDI	C	1991	A
Efficient DAG construction and heuristic calculation for instruction scheduling [216]	ACM	MICRO	W	1991	E
Efficiently computing static single assignment form and the control dependence graph [217]	ACM	TOPLAS	J	1991	M
Software prefetching [218]	ACM	ASPLOS	C	1991	O
Compiling global name-space parallel loops for distributed execution [219]	IEEE	TPDS	J	1991	O
An implementation of interprocedural bounded regular section analysis [220]	ACM	TPDS	J	1991	O
Limits of instruction-level parallelism [221]	ACM	ASPLOS	C	1991	S
Uniform techniques for loop optimization [222]	ACM	ICS	C	1991	S
A data locality optimizing [209]	ACM	PLDI	C	1991	A, D, M, O
Constant propagation with conditional branches [223]	ACM	TOPLAS	J	1991	A, E, M, O, S
Efficient and exact data dependence analysis [224]	ACM	PLDI	C	1991	A, D, O
Efficiently computing static single assignment [225]	ACM	TOPLAS	J	1991	A, D, E, O
Global instruction scheduling for superscalar machines [226]	ACM	PLDI	C	1991	A, D, E
Practical adaption of the global optimization algorithm of Morel and Renvoise [227]	ACM	TOPLAS	J	1991	A, E
The cache performance and optimizations of blocked algorithms [228]	ACM	ASPLOS	C	1991	A, D
A loop transformation theory and an algorithm to maximize parallelism [229]	IEEE	TPDS	J	1991	O, S
Dataflow analysis of array and scalar references [230]	Springer	JPP	J	1991	A, S
Optimization of array accesses by collective loop transformations [231]	ACM	SC	C	1991	D, O
Interprocedural transformations for parallel code generation [232]	ACM/IEE	SC	C	1991	O, S
Practical dependence testing [233]	ACM	PLDI	C	1991	A, O
Procedure merging with instruction caches [234]	ACM	PLDI	C	1991	A, S
An experiment with inline substitution [235]	Wiley	SPE	J	1991	E, S

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Title	Venue Type	Venue Name	Type	Year	Sources
Access normalization: loop restructuring for NUMA compilers [?]	ACM	ASPLOS	C	1991	-
Non-unimodular transformations of nested loops [236]	ACM	SC	C	1992	-
A general framework for iteration-reordering loop transformations [237]	ACM	PLDI	C	1992	-
A program integration algorithm that accommodates semantics-preserving transformations [238]	ACM	TOSEM	J	1992	-
The transitive closure of control dependence: The iterated join [239]	ACM	TOPLAS (LOPLAS)	J	1992	-
Abstract description of pointer data structures: an approach for improving the analysis and optimization of imperative programs [240]	ACM	TOPLAS (LOPLAS)	J	1992	-
Abstractions for recursive pointer data structures: improving the analysis and transformation of imperative programs [241]	ACM	PLDI	C	1992	-
Generalized dominators and post-dominators [242]	ACM	POPL	C	1992	-
A comprehensive approach to parallel data flow analysis [243]	ACM	ICS	C	1992	-
Integrating scalar optimization and parallelization [244]	Springer	LCPC	C	1992	A
Sharlit—a tool for building optimizers [245]	ACM	PLDI	C	1992	A
How to analyze large programs efficiently and informatively [246]	ACM	PLDI	C	1992	A
Compiler code transformations for superscalar-based high performance systems [247]	IEEE	SC	C	1992	A
Engineering a simple, efficient code-generator generator [248]	ACM	TOPLAS (LOPLAS)	J	1992	D
Some efficient solutions to the affine scheduling problem. I. One-dimensional time [249]	Elsevier	JPP	J	1992	D
Avoiding unconditional jumps by code replication [250]	ACM	PLDI	C	1992	E
Rematerialization [251]	ACM	PLDI	C	1992	E
Coloring register pairs [252]	ACM	TOPLAS (LOPLAS)	J	1992	E
Optimizing for parallelism and data locality [253]	ACM	SC	C	1992	O
Maximizing loop parallelism and improving data locality via loop fusion and distribution [254]	ACM	LCPC	W	1992	O
Beyond induction variables [255]	ACM	PLDI	C	1992	O
Efficient call graph analysis [256]	ACM	TOPLAS (LOPLAS)	J	1992	O
A safe approximate algorithm for interprocedural aliasing [257]	ACM	PLDI	C	1992	O
Relaxing SIMD control flow constraints using loop transformations [241]	ACM	PLDI	C	1992	S
Unexpected side effects of inline substitution: a case study [258]	ACM	TOPLAS (LOPLAS)	J	1992	S
Eliminating false positives using the omega test [259]	ACM	PLDI	C	1992	A, D, O
Lazy code motion [260]	ACM	PLDI	C	1992	A, D, E
Software support for speculative loads [261]	ACM	ASPLOS	C	1992	A, E
A practical algorithm for exact array dependence analysis [262]	ACM	CACM	J	1992	O, S
Array privatization for parallel execution of loops [263]	ACM	ICS	C	1992	O, S
The power test for data dependence [264]	IEEE	TCO	J	1992	A, S
Eliminating branches using a superoptimizer and the GNU C compiler [265]	ACM	PLDI	C	1992	E, S
Design and evaluation of a compiler algorithm for prefetching [266]	ACM	ASPLOS	C	1992	D, O
Data dependence and data-flow analysis of arrays [267]	Springer	LCPC	C	1992	-
Advanced compiler optimizations for sparse computations [268]	ACM	SC	C	1993	-
Access normalization: loop restructuring for NUMA computers [269]	ACM	TOCS	J	1993	-
On the conversion of indirect to direct recursion [270]	ACM	TOPLAS (LOPLAS)	J	1993	-

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Title	Venue Type	Venue Name	Type	Year	Sources
A practical data flow framework for array reference analysis and its use in optimizations [271]	ACM	PLDI	C	1993	-
Using lifetime predictors to improve memory allocation performance [272]	ACM	PLDI	C	1993	-
Data flow analysis for parallel programs [273]	ACM	CSC	C	1993	-
Dependence-based program analysis [274]	ACM	PLDI	C	1993	A
A variation of Knoop, Rüthing, and Steffen's lazy code motion [275]	ACM	PLDI	C	1993	E
Lazy strength reduction [276]	C&H	JPL	J	1993	A, E
Collective loop fusion for array contraction [277]	Springer	LCPC	C	1993	O
Interprocedural constant propagation: an empirical study [278]	ACM	TOPLAS (LOPLAS)	J	1993	O
Symbolic analysis: A basis for parallelization, optimization, and scheduling of programs [279]	Springer	LCPC	W	1993	O
Array-data flow analysis and its use in array privatization [280]	ACM	POPL	C	1993	S
Automatic array alignment in data-parallel programs [281]	ACM	POPL	C	1993	S
Global optimizations for parallelism and locality on scalable parallel machines [282]	ACM	PLDI	C	1993	S
Instruction-Level Parallel Processing: History, Overview, and Perspective [283]	Springer	JSC	J	1993	S
A practical system for intermodule code optimization at link-time [284]	C&H	JPL	J	1993	A
Loop-level parallelism in numeric and symbolic programs [285]	IEEE	TPDS	J	1993	S
Orchestrating interactions among parallel computations [286]	ACM	PLDI	C	1993	S
The superblock: an effective technique for VLIW and superscalar compilation [287]	Springer	JSC	J	1993	S
Optimizing array bound checks using flow analysis [288]	ACM	PLDI	C	1993	A, E
Register allocation with instruction scheduling [289]	ACM	PLDI	C	1993	A, E
A methodology for procedure cloning [290]	Elsevier	COLA (COMLAN)	J	1993	A, O, S
Efficient flow-sensitive interprocedural computation of pointer-induced aliases and side effects [291]	ACM	POPL	C	1993	E, O, S
Automatic array privatization [292]	Springer	LCPC	W	1993	O, S
Interprocedural modification side effect analysis with pointer aliasing [293]	ACM	PLDI	C	1993	M, S
Branch prediction for free [294]	ACM	PLDI	C	1993	A, M
Enabling unimodular transformations [295]	ACM	SC	C	1994	-
Compiler optimizations for improving data locality [296]	ACM	ASPLOS	C	1994	-
The revival transformation [297]	ACM	PLDI	C	1994	-
The range test: a dependence test for symbolic, non-linear expressions [298]	ACM	SC	C	1994	-
Link-time optimization of address calculation on a 64-bit architecture [299]	ACM	PLDI	C	1994	A
Effective partial redundancy elimination [300]	ACM	PLDI	C	1994	A
Partial dead code elimination [301]	ACM	PLDI	C	1994	A
A general data dependence test for dynamic, pointer-based data structures [240]	ACM	PLDI	C	1994	A
Instruction scheduling over regions: A framework for scheduling across basic blocks [302]	Springer	CC	C	1994	A
Value dependence graphs: representation without taxation [303]	ACM	POPL	C	1994	A
Zero-cost range splitting [304]	ACM	PLDI	C	1994	E
Reducing branch costs via branch alignment [305]	ACM	OSR	J	1994	E
Improving the ratio of memory operations to floating-point operations in loops [306]	ACM	TOPLAS	J	1994	M

Continued on next page

Title	Venue Type	Venue Name	Type	Year	Sources
Optimizing multi-method dispatch using compressed dispatch tables [307]	ACM	OOPSLA	C	1994	M
Improving the accuracy of static branch prediction using branch correlation [308]	ACM	ASPLOS	C	1994	M
A compiler framework for restructuring data declarations to enhance cache and TLB effectiveness [309]	IEEE	CASCON	C	1994	S
False sharing and spatial locality in multiprocessor caches [310]	IEEE	TCO	J	1994	S
Reassociation and strength reduction [311]	ACM	SCO	C	1994	S
The alignment-distribution graph [312]	Springer	LCPC	W	1994	S
Improvements to graph coloring register allocation [313]	ACM	TOPLAS	J	1994	A, E, M
Context-sensitive interprocedural points-to analysis in the presence of function pointers [314]	ACM	PLDI	C	1994	D, E
Interprocedural may-alias analysis for pointers: beyond k-limiting [315]	ACM	PLDI	C	1994	A, E
Scalar replacement in the presence of conditional control flow [316]	Wiley	SPE	J	1994	E, O

Table 1: The papers from *Advanced Compiler Design and Implementation* [1] (A), *Compilers: Principles, Techniques, and Tools* [2] (D), *Engineering a Compiler* [3] (E), *Modern Compiler Implementation in C/Java/ML* [4–6] (M), *Optimizing Compilers for Modern Architectures: A Dependence-Based Approach* [7] (O), and the Bacon's survey [8] (S). In the **Type** column, C stands for conference, J for journal, and W for workshop.

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