Subject index for papers in Volume 38

Each index entry below is accompanied by an author's name and a page number; the author index contains the title of the paper and the names of coauthors, if any.

			Artificial intelligence Algorithms for Arabic name transliteration	Arbabi	183
Subject	Author	Page	A domestic		
Adhesion science Adhesion between polymers Atomic-scale metal adhesion	Brown	379	Automata Highly parallelizable route planner based on cellular automata algorithms	Stiles	167
investigated by scanning tunneling microscopy Fracture mechanics for thin-film	Dürig	347	Beams, charged particle Thin film bonding using ion beam		
adhesion Plasma modification of polymer	Thouless	367	techniques—A review	Baglin	413
surfaces for adhesion improvement Studies of adhesion by secondary ion	Egitto	423	Chemistry and chemical engineering Plasma modification of polymer		
mass spectrometry Tailoring the surface morphology of	Spool	391	surfaces for adhesion improvement Studies of adhesion by secondary ion	Egitto	423
polyimide for improved adhesion Thin film bonding using ion beam	Saraf	441	mass spectrometry Wet-process surface modification of	Spool	391
techniques—A review Wet-process surface modification of dielectric polymers: Adhesion	Baglin	413	dielectric polymers: Adhesion enhancement and metallization	Lee	457
enhancement and metallization	Lee	457	Circuit and device technology Design considerations for the		
Algorithms Algorithms for Arabic name transliteration Exploiting functional parallelism	Arbabi	183	PowerPC 601 microprocessor Implementation of the PowerPC 601 microprocessor	Vaden Brodnax	605 621
of POWER2 to design high- performance numerical algorithms Highly parallelizable route planner based on cellular automata	Agarwal	563	Codes and coding Performance of a cyclic redundancy check and its interaction with a	.	C = 1
algorithms Memory versus randomization in	Stiles	167	data scrambler	Boudreau	651
on-line algorithms Performance of a cyclic redundancy	Raghavan	683	Communications and communication networks Embedding hyperpyramids into		
check and its interaction with a data scrambler	Boudreau	651	hypercubes	Но	31
Surveillance and tracking of ballistic missile launches The Commercial Data Masking Facility (CDMF) data privacy	Rudd	195	Compilers and interpreters Instruction scheduling in the TOBEY compiler	Blainey	577
algorithm	Johnson	217	Computation		
Analytical models Fracture mechanics for thin-film adhesion	Thouless	367	An environment for parallel and distributed computation with application to overlapping grids Improving performance of linear	Chesshire	285
Arithmetic and logical unit design POWER2 fixed-point, data cache, and storage control units	Shippy	503	algebra algorithms for dense matrices, using algorithmic prefetch	Agarwal	265

POWER2 floating-point unit:

Architecture and implementation

739

525

Hicks

The implicit function theorem revisited	Shub	259	Performance of a cyclic redundancy check and its interaction with a		
Computational methods			data scrambler	Boudreau	651
A high-performance matrix-					
multiplication algorithm on a			Data, structures and accessing		
distributed-memory parallel			A high-performance matrix-		
computer, using overlapped			multiplication algorithm on a		
communication	Agarwal	673	distributed-memory parallel computer, using overlapped		
Exploiting functional parallelism	_		computer, using overlapped communication	Agarwal	673
of POWER2 to design high-			Improving performance of linear	Agaiwai	075
performance numerical algorithms	Agarwal	563	algebra algorithms for dense		
Improving performance of linear			matrices, using algorithmic		
algebra algorithms for dense			prefetch	Agarwal	265
matrices, using algorithmic	A1	265	•	Ü	
prefetch	Agarwal	265	Dielectrics		
The implicit function theorem revisited	Shub	250	Wet-process surface modification of		
revisited	Snuo	259	dielectric polymers: Adhesion		
Computer architecture			enhancement and metallization	Lee	457
Design considerations for the			emaneement and metamization	LCC	457
PowerPC 601 microprocessor	Vaden	605	D.W.		
POWER2 fixed-point, data cache,	v uden	005	Diffusion	D	270
and storage control units	Shippy	503	Adhesion between polymers	Brown	379
POWER2 floating-point unit:	отрру	000			
Architecture and implementation	Hicks	525	Distributed processing		
POWER2 instruction cache unit	Barreh	537	A high-performance matrix-		
POWER2: Next generation of the			multiplication algorithm on a		
RISC System/6000 family	White	493	distributed-memory parallel		
SCISM: A scalable compound			computer, using overlapped		
instruction set machine	Vassiliadis	59	communication	Agarwal	673
The POWER2 performance monitor	Welbon	545	An environment for parallel and		
			distributed computation with		
Computer organization and design			application to overlapping grids	Chesshire	285
Design considerations for the					
PowerPC 601 microprocessor	Vaden	605	Electromagnetics		
POWER2 fixed-point, data cache,			Performance limits of electrical		
and storage control units	Shippy	503	cables for intrasystem		
POWER2 floating-point unit:			communication	Deutsch	659
Architecture and implementation	Hicks	525			
POWER2 instruction cache unit	Barreh	537	Error correction codes		
POWER2: Next generation of the			Error correction codes Performance of a cyclic redundancy		
RISC System/6000 family	White	493	check and its interaction with a		
SCISM: A scalable compound			data scrambler	Boudreau	651
instruction set machine	Vassiliadis	59	data scramolei	Doddicau	051
The POWER2 performance monitor	Welbon	545			
Contoniontina			Error detection and correction		
Contamination			Performance of a cyclic redundancy		
Plasma modification of polymer	E-itt-	400	check and its interaction with a	D . 1	(51
surfaces for adhesion improvement	Egitto	423	data scrambler	Boudreau	651
Thin film bonding using ion beam techniques—A review	Doglin	413			
techniques—A review	Baglin	413	Fourier transforms .		
Copper			The Fast Staggered Transform,		
Modeling the thermal-to-plasma			composite symmetries, and		
transitions for Cu photoablation	Vertes	3	compact symmetric algorithms	Bradford	117
manufaction for our photouclainon	. 01100	J			
Cryptography			Game theory		
The Commercial Data Masking			Memory versus randomization in		
Facility (CDMF) data privacy			on-line algorithms	Raghavan	683
algorithm	Johnson	217	The convergence of a modified	C	
The Data Encryption Standard (DES)			barrier method for convex		
and its strength against attacks	Coppersmith	243	programming	Jensen	307
Date of the second					
Data encryption standard (DES)			Graph theory		
The Data Encryption Standard (DES)	Commonwealth	242	Embedding hyperpyramids into		
and its strength against attacks	Coppersmith	243	hypercubes	Но	31
Data transmission					
Performance limits of electrical			I/O devices, systems, and technology		
cables for intrasystem			Background data movement in a		
communication	Deutsch	659	log-structured disk subsystem	McNutt	47

740

Image processing Automated subpixel image registration of remotely sensed			The convergence of a modified barrier method for convex programming	Jensen	307
imagery	Pritt	157	The Data Encryption Standard (DES) and its strength against attacks The Fast Staggered Transform,	Coppersmith	243
Interfaces Adhesion between polymers Fracture mechanics for thin-film	Brown	379	composite symmetries, and compact symmetric algorithms	Bradford	117
adhesion Studies of adhesion by secondary ion	Thouless	367	The four-parameter kappa distribution	Hosking	251
mass spectrometry Thin film bonding using ion beam	Spool	391	The implicit function theorem revisited	Shub	259
techniques—A review	Baglin	413	Measurement		
Lasers Modeling the thermal-to-plasma			Studies of adhesion by secondary ion mass spectrometry	Spool	391
transitions for Cu photoablation	Vertes	3	Mechanical analysis		
Logic design and technology Implementation of the PowerPC 601			Adhesion between polymers	Brown	379
microprocessor	Brodnax	621	Mechanics and mechanisms		
POWER2 fixed-point, data cache, and storage control units POWER2 floating-point unit:	Shippy	503	Fracture mechanics for thin-film adhesion	Thouless	367
Architecture and implementation	Hicks	525	Memory, cache		
POWER2 instruction cache unit SCISM: A scalable compound	Barreh	537	POWER2 instruction cache unit	Barreh	537
instruction set machine	Vassiliadis	59	Microelectronics		
Manufacturing ABC: A better control for			Design considerations for the PowerPC 601 microprocessor	Vaden	605
manufacturing	Kurtzberg	11	Implementation of the PowerPC 601 microprocessor	Brodnax	621
Implementation of the PowerPC 601 microprocessor	Brodnax	621	•	2.00	321
Mass spectrometry			Microprocessor systems and applications Design considerations for the		
Studies of adhesion by secondary ion mass spectrometry	Spool	391	PowerPC 601 microprocessor	Vaden	605
-	•		Models and modeling ABC: A better control for		
Mathematical functions and techniques Dimension-independent bounds on			manufacturing	Kurtzberg	11
the degree of approximation by neural networks	Mhaskar	277	Background data movement in a log-structured disk subsystem	McNutt	47
Exploiting functional parallelism of POWER2 to design high-			Modeling the thermal-to-plasma transitions for Cu photoablation	Vertes	3
performance numerical algorithms The four-parameter kappa	Agarwal	563	Nanoscale structures and devices		
distribution The implicit function theorem	Hosking	251	Atomic-scale metal adhesion investigated by scanning tunneling		
revisited	Shub	259	microscopy	Dürig	347
Mathematics (applied) A nonlinear allocation problem	Denardo	301	Networks	Dananda	301
An environment for parallel and distributed computation with	Dunardo	501	A nonlinear allocation problem Dimension-independent bounds on	Denardo	301
application to overlapping grids Automated subpixel image	Chesshire	285	the degree of approximation by neural networks Embedding hyperpyramids into	Mhaskar	277
registration of remotely sensed imagery	Pritt	157	hypercubes	Но	31
Dimension-independent bounds on the degree of approximation by			Neural networks		
neural networks Exploiting functional parallelism	Mhaskar	277	Algorithms for Arabic name transliteration	Arbabi	183
of POWER2 to design high-	Agamual	562	Dimension-independent bounds on the degree of approximation by		
performance numerical algorithms Highly parallelizable route planner	Agarwal	563	neural networks	Mhaskar	277
based on cellular automata algorithms	Stiles	167	Noise		
Recursive least-squares sequence estimation	Gozzo	131	Recursive least-squares sequence estimation	Gozzo	131

741

Operating systems			Programming, mathematical		
Trace-directed program restructuring		505	A nonlinear allocation problem	Denardo	301
for AIX executables	Heisch	595	The convergence of a modified		
			barrier method for convex programming	Jensen	307
Optimization	Domondo	301	programming	Jensen	507
A nonlinear allocation problem The convergence of a modified	Denardo	301	Programming, programs, and programming	10	
barrier method for convex			languages	' 0	
programming	Jensen	307	Instruction scheduling in the TOBEY		
P8	• • • • • • • • • • • • • • • • • • • •		compiler	Blainey	577
Parallel processing			Trace-directed program restructuring	_	
A high-performance matrix-			for AIX executables	Heisch	595
multiplication algorithm on a					
distributed-memory parallel			Quality control		
computer, using overlapped			ABC: A better control for	T7	11
communication	Agarwal	673	manufacturing	Kurtzberg	11
An environment for parallel and			Deduced instruction set commuters (DISC)		
distributed computation with	Chesshire	285	Reduced-instruction-set computers (RISC) Commercial workload performance		
application to overlapping grids	Chessine	265	in the IBM POWER2 RISC		
Parforman on an abusia			System/6000 processor	Franklin	555
Performance analysis Background data movement in a			Exploiting functional parallelism	_	
log-structured disk subsystem	McNutt	47	of POWER2 to design high-		
Commercial workload performance	17101 (411)	• • • • • • • • • • • • • • • • • • • •	performance numerical algorithms	Agarwal	563
in the IBM POWER2 RISC			Instruction scheduling in the TOBEY		
System/6000 processor	Franklin	555	compiler	Blainey	577
The POWER2 performance monitor	Welbon	545	POWER2 fixed-point, data cache,	OL:	502
			and storage control units	Shippy	503
Physical chemistry			POWER2 floating-point unit: Architecture and implementation	Hicks	525
Tailoring the surface morphology of			POWER2 instruction cache unit	Barreh	537
polyimide for improved adhesion	Saraf	441	POWER2: Next generation of the	Burren	
			RISC System/6000 family	White	493
Physics, solid state			Surveillance and tracking of ballistic		
Atomic-scale metal adhesion			missile launches	Rudd	195
investigated by scanning tunneling	D	2.47	The POWER2 performance monitor	Welbon	545
microscopy	Dürig	347	Trace-directed program restructuring		505
Fracture mechanics for thin-film adhesion	Thouless	367	for AIX executables	Heisch	595
adicsion	Thouless	307			
Physics, theoretical			Remote sensing		
Fracture mechanics for thin-film			Automated subpixel image registration of remotely sensed		
adhesion	Thouless	367	imagery	Pritt	157
			imagery		
Plasmas			Scanning tunneling microscopy		
Plasma modification of polymer			Atomic-scale metal adhesion		
surfaces for adhesion improvement	Egitto	423	investigated by scanning tunneling		
			microscopy	Dürig	347
Polymers					
Adhesion between polymers	Brown	379	Simulation		
Plasma modification of polymer	F-144-	400	ABC: A better control for	Vuntahana	11
surfaces for adhesion improvement	Egitto	423	manufacturing SCISM: A scalable compound	Kurtzberg	11
Tailoring the surface morphology of polyimide for improved adhesion	Saraf	441	instruction set machine	Vassiliadis	59
Wet-process surface modification of	Salai	771	instruction set macrime	v assinaais	3,
dielectric polymers: Adhesion			Sputtering		
enhancement and metallization	Lee	457	Studies of adhesion by secondary ion		
			mass spectrometry	Spool	391
Probability distributions			•	· ·	
The four-parameter kappa			Storage (computer) devices and systems		
distribution	Hosking	251	Background data movement in a		
			log-structured disk subsystem	McNutt	47
Process control and development					
ABC: A better control for			Storage hierarchies		
manufacturing	Kurtzberg	11	Improving performance of linear		
Tailoring the surface morphology of			algebra algorithms for dense		
polyimide for improved adhesion	Saraf	441	matrices, using algorithmic	A comvet	265
Wet-process surface modification of			prefetch Memory versus randomization in	Agarwal	203
dielectric polymers: Adhesion enhancement and metallization	Lee	457	on-line algorithms	Raghavan	683
CHICKLY CHA HIVEHILLUIVII					

Surface effects		
Tailoring the surface morphology of polyimide for improved adhesion	Saraf	441
Surface science		
Atomic-scale metal adhesion		
investigated by scanning tunneling microscopy	Dürig	347
Plasma modification of polymer	Dung	347
surfaces for adhesion improvement	Egitto	423
Studies of adhesion by secondary ion		
mass spectrometry	Spool	391
Tailoring the surface morphology of polyimide for improved adhesion	Saraf	441
Wet-process surface modification of	54.42	
dielectric polymers: Adhesion	_	
enhancement and metallization	Lee	457
Testing, chip		
Implementation of the PowerPC 601		
microprocessor	Brodnax	621
T1		
Topology Embedding hyperpyramids into		
hypercubes	Но	31
X-ray diffraction		
Tailoring the surface morphology of polyimide for improved adhesion	Saraf	441
polyminae for improved admesion	D 11111	, ,,,