A Bibliography of Publications of Yousef Saad

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Abstract

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Title word cross-reference

$3D$ [GHS10]. $\exp(-\tau A)b$ [SSS10]. $f(A)b$ [CAS11]. *ILU* [LSC03]. *ILUS* [CS97c]. k [CrFS09]. *LU* [CS97c, LSS03b, Saa94d]. $\mathrm{tr}(f(A))$ [CS18, UCS17].

'02 [AGPS03].

1988 [BTS+89]. **1993** [BCEP94].

20th [Sv00].

5 [WS93].

Abaffy [Saa92h]. **ABS** [Saa92h]. **Abstract** [SS85c]. **accelerated** [LS13b]. **accelerating** [KKPS18]. **Acceleration** [BRZS18, KS87, Saa84b, CS99, rFS09, KS92, ZSTC06a]. **acceptors** [SKBS88]. **acoustic** [EGMS20]. **Adapted** [FSUS20]. **ADI** [MS92, MS93]. **advances** [GGL94]. **algebra** [DS91a]. **Algebraic** [LS17, GHS10, LSS03a, SS02b, SST04, SSC04, XLS16]. **Algorithm** [DS91b, LXV+16, Saa85a, SYEG00, ZS07, ESS86, GS87, GS88b, GS88a, GS89b, Saa74c, Saa80a, Saa82a, Saa86c, SS86c, SL86, SL88, SW93, Saa93a, SW96b, Saa91a]. **algorithmes** [Saa74b]. **Algorithms** [AGPS03, ASSS11, BDG+10, CS92, CS85a, CS86, CTJ+95, CTSZ07, CZC+09, LXES19, SS85g, Saa92a, Saa92h, Saa94a, Saa94b, Saa06, BGSS14, BS94, CS93, CS96, FRSY96, GS94, KS87, Saa90b, Saa94e, US19, VS14]. **Alternating** [JSS87, SS85c]. **amplitude** [WGSC18]. **Analysis** [BSS09, BSS10, Saa92b, Saa94b, Saa97, Saa16, BJR+09, Saa94e, Saa00b]. **analytics** [KMB+18]. **Anderson** [BRZS18]. **angle** [LSS86, SL86, SL88]. **Application**

[CS12, CTWS94]. **Applications** [AGPS03, ASSS11, BKS08, BDG+10, FSUS20, Saa06, SrFS08, BJR+09, CSS02, CCS10, CS98a, CS85b, Saa83a, Saa90b, Saa90d, SAD+00, SS11, SSC04]. **approach** [GS90a]. **approaches** [KKPS18]. **Approximate** [BS02b, BS02c, CS94, CS97d, CS98b, Saa03a, BS02a, CrFS09, CS97f, USS17a]. **Approximating** [LSY16]. **Approximation** [CS09b, FSUS20, GS92a, BSS09, CCE+18, CS97a, CS08, EGMS20, GS90b, GS90a, GS92b, GSS03, ITS07, Saa84a, Saa86b, Saa86e, SS11, UMS17]. **Approximations** [CAS11, Saa92b, GHS10, US19]. **Architectures** [IS85, IS86b, IS86a, SS86b, GS89d, SS89b]. **arising** [Saa84a, Saa86b, Saa86e, SMSW00]. **ARMS** [SS02b, SST04]. **Arnoldi** [BSS10, DS91b, Saa80c, SSW98]. **array** [SSS85]. **Assignment** [DS91b, Saa88d]. **Associated** [DS91b]. **Atom** [TZA+06]. **Augmented** [Saa97, CS97b]. **Automated** [KXS18]. **automatic** [GS94, Saa92a].

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[KKPS18, LXSdH20]. **control** [DS91a, Saa90d]. **Convergence** [BS94, Saa80b]. **convergent** [BS89]. **convex** [BSS09]. **Cornelius** [BCEP94]. **correcting** [UMS17]. **Correction** [LS17, PS07, ZXS21]. **corrections** [LXS16, XLS16]. **counts** [DPS16, NPS16]. **coupled** [KS92]. **coupling** [dlGGS+05]. **Crout** [LSC03, LS05a]. **cubic** [SKBS88]. **Cucheb** [AKS17]. **cyclic** [GS87, GS88b, GS88a, GS89b].

dans [Saa74b]. **Data** [SS85a, SS85d, SS86b, SS89a, SS89b, Saa94a, SM95, CrFS09, KMB+18, SS14]. **Davidson** [SSW98, SS98b, ZS07]. **December** [BCEP94]. **Decomposition** [CS92, HS06, KXS18, LS17, Saa94a, TS11, CS93, CS96, KKPS18, LXS16, PS07, Saa92a, SSZ98, UMS17]. **decoupling** [KS87]. **Definite** [SS80, VSS14]. **Deflated** [CS97b, SYEG00]. **deflation** [Saa88d]. **Dense** [CS12, ISS84, ISS86, KMB+18]. **Dense-Linear-System** [ISS86]. **Densities** [XLS18, BSTC05, LSY16, USS17a]. **Density** [BKS08, BSK+03, RGSB08, SS11, dlGGS+05]. **density-functional** [RGSB08]. **dependent** [BSK+03, RGSB08, dlGGS+05]. **Design** [Saa87b, SW95, SW96a, Saa87a, SMSW00]. **Detection** [CS12]. **Diagonal** [SZ99c, Saa05, TS11, BKS07, TS12]. **diagonalization** [JKSC99, ZCS14]. **diatomic** [CTWS94]. **dictionary** [USS17b]. **Dielectric** [ÖBSC03]. **difference** [CTS93, CTS94, CTWS94, JTD+94, SSS85]. **Differential** [CSS85, CSS87, SS81]. **Dimension** [CS09a, KCS09, KCS11, Saa83b]. **dimensional** [CrFS09, LSS86, LXSdH20, SS14]. **Dimensionality** [KS07, NBS10, SrFS08]. **Dirac** [SS11]. **Direct** [SS85e, SS87, SW96b]. **Direction** [SS85c, JSS87]. **disjoint** [Saa83d]. **Distributed** [MS94, Saa92e, Saa94a, SM95, SS98a, SS99a, SS99c, Saa07]. **Distributions** [CS14]. **Divide** [LS13a]. **Domain** [CS92, KXS18, KKPS18, LS17, Saa94a, SSZ98, SZ99b, TS11, CS93, CS96, LXS16, PS07, Saa92a]. **Domain-Based** [SZ99b]. **Domain-Decomposition-Type** [TS11]. **Dominance** [Saa05]. **d'origine** [Saa74b]. **DQGMRES** [SW93, SW96b]. **dual** [Saa92d, Saa94d]. **Dynamic** [SSW98]. **dynamics** [ACSS12, CJWS96, JTD+94].

E. [Saa92h]. **Editorial** [Saa00a, BGSS14]. **Effective** [CS09a]. **Efficient** [AJT+07, DPS16, GS90b, GS92b, GS92a, NPS16, dlGGS+05, LSS86]. **eigendecomposition** [SS14]. **eigenelements** [Saa80c]. **Eigenfaces** [SrFS08]. **Eigenproblems** [ZS07, KCS09, KCS11, SGSM15]. **Eigensolutions** [Saa85b]. **Eigenvalue** [BSS10, rFS12, IS85, IS86b, LXV+16, PS89, Saa83c, Saa84b, Saa11b, Saa16, SSF93, XLS18, DPS16, EGMS20, KLS16, KKPS18, NPS16, Saa82b, Saa83e, Saa89b, Saa92g, SSC+96, SSF95, SS98b, WSS98, ZS08]. **Eigenvalues** [BS05a, Saa74a, LXES19]. **Electronic** [JKSC99, SCS10, AJT+07, CTS93, CTS94, CKV+03, CTSZ07, CZC+09, SSC+96]. **element** [KSS03, KSSG04]. **Elimination** [Saa85a, Saa86a, Saa96, Saa86c, Saa86d, Saa92c]. **Elliptic** [CSS85, CSS87, GS87, GS88b, GS88a, GS89b, GS89d, KS92, SS81, SSS85]. **Engineering** [PS20]. **Enhanced** [SS99b, SZ01]. **Environments** [Saa87b, Saa92e, CS99, Saa87a]. **equation** [KSS03, KSSG04, LSS86, LXSdH20, SL86, SL88, ZCS14]. **Equations** [CSS85, GS92a, MS92, MS93, BS87, BS90, BS91, CSS87, ESS86, GS87, GS88b, GS88a, GS89b, GS89c, GS89a, GS90b, GS90a, GS92b, GS83, PS07, SS81, SSS85, Saa90c, Saa20]. **Eric** [Saa95]. **Error**

[Saa94b, CS18, Saa94e, UMS17]. **estimate** [CS18]. **Estimation** [UCS17, DPS16, NPS16, USS17a]. **estimator** [BKS07]. **Études** [Saa74b]. **Evolution** [TZA+06, CTSZ07]. **Evolving** [Saa16]. **EVSL** [LXES19]. **Exact** [Saa03a]. **excited** [BGB+10, SKBS88]. **Experimental** [CS97e]. **exploration** [Fit86]. **Exponential** [Saa92b, CS98a]. **Extended** [SS85c]. **Extraction** [CS12]. **Extreme** [rFS12].

F [Saa95]. **Face** [KS05a]. **faces** [KS05a]. **Factored** [BS02b, BS02c, BS02a]. **Factorization** [HS06, LS05a, Saa92d, Saa94d]. **Factorizations** [MOKS12, CCS10]. **Fast** [CrFS09, USS17a, UCS17, VS14, XLS18, GS87, GS88b, GS88a, GS89b, GS89d, US19]. **February** [GGL94]. **feedback** [Saa88d]. **Fermi** [SS11]. **few** [Saa94b, Saa94e]. **field** [ZSTC06a, ZSTC06b]. **Filtered** [BKS08, rFS12, Saa06, AKS17, ZSTC06a, ZSTC06b, ZCS14]. **Filtering** [KXS18, LXV+16]. **Filters** [XS16]. **Finding** [Saa03a]. **finite** [CTS93, CTS94, CTWS94, JTD+94, KSS03, KSSG04]. **finite-difference** [CTWS94]. **finite-difference-pseudopotential** [JTD+94]. **first** [AJT+07]. **first-principles** [AJT+07]. **flexible** [Saa91a, Saa93a]. **flow** [WGSC18]. **flows** [LLCS02]. **fMRI** [SS14]. **forces** [CJWS96]. **format** [CS97c]. **free** [ZCS14]. **frequency** [LXSdH20]. **Function** [XS17, SS11]. **Functional** [BKS08, BSK+03, RGSB08, SS11, dlGGS+05]. **Functions** [FSUS20]. **Further** [BSS10, Saa00b].

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Hand [Saa87d, KMB+18]. **Harnessing** [BGB+10]. **Harwell** [SW89]. **Harwell-Boeing** [SW89]. **held** [GGL94]. **Helmholtz** [KSS03, KSSG04, LXSdH20, OKS10]. **Hermitian** [LXV+16, Saa74a]. **Heuristic** [GS94]. **Hierarchical** [DKXS18, HS06]. **hierarchy** [CCE+18]. **High** [CSW00, CrFS09, LXSdH20, SS14]. **high-dimensional** [SS14]. **high-frequency** [LXSdH20]. **High-order** [CSW00]. **Higher** [CTWS94, SKBS88, JTD+94]. **Higher-order** [CTWS94, JTD+94]. **Highly** [Saa94c]. **historical** [Saa20]. **Houston** [Fit86]. **Hybrid** [BS87, BS90, ESS86, GHS10]. **hydrodynamic** [ACSS12]. **Hypercube** [CS85a, CSS85, CS86, CSS87]. **Hypercubes** [SS85a, SS85d, SS85b, Saa86a, SS88, Saa86d, SS89a].

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[LS06, MOKS12, CCS10, CS97c, Saa92d, SW93, Saa94d, SW96b]. **Incremental** [CCS10]. **Indefinite** [DKXS18, XS17, CS97e, Saa83d, Saa84c, Saa88a, Saa88b, Saa88c]. **Indexing** [SrFS08, VS14]. **industrial** [SAD+00]. **Inexact** [WSS98]. **Initio** [ÖBSC03, JTD+94]. **inner** [Saa91a, Saa93a]. **inner-outer** [Saa91a, Saa93a]. **Institute** [BTS+89]. **integration** [KKPS18, LXSdH20]. **interactions** [ACSS12]. **Interior** [rFS12]. **International** [BCEP94]. **interval** [DPS16, NPS16]. **intervals** [Saa83d]. **Invariant** [BKS08, PS07]. **Inverse** [BS02b, BS05b, CS94, CS98b, TS11, BS02a, CS97d, CS97f, TS12]. **Inverse-Based** [BS05b]. **Inverses** [BS02c]. **Invert** [PS87, PS85]. **Iron** [TZA+06]. **irregularly** [FRSY96]. **issue** [ASSS11, BDG+10]. **Iteration** [Saa16, ZSTC06b, ZCS14]. **Iterations** [BKS08, CS98b, Saa00b]. **Iterative** [BTS+89, CS85b, GS83, SS81, Saa83d, SM95, Sv00, Saa03b, Saa20, CSS02, GGL94, JSS07, KMB+18, LS13b, SW94, SW95, SW96a, SKL+97, Saa01].

J. [Saa92h]. **Jacobi** [SS98b]. **January** [Fit86]. **journey** [Saa20].

Kernels [SM95]. **kit** [Saa90a]. **Kohn** [SCS12, ZCS14]. **Krylov** [ACSS12, BSS09, BS87, BS89, BS90, BS94, CS99, CCSY98, CS97b, CS14, ESS86, GS92b, GS92a, Saa81, Saa84c, Saa89a, Saa90b, Saa90d, Saa91b, Saa92b, Saa92e, Saa92f, Saa93b, Saa97, Saa98, Saa11a, ZS08].

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Saa90a, SW95, SW96a, SAD+00, TS12, USS17a, US19, VSS14, dlGGS+05]. **Memory** [Saa87b, SM95, Saa87a]. **Message** [Saa87b, Saa87a, WS93]. **Method** [SS80, Saa87d, CTS93, CTS94, CTWS94, CS18, EGMS20, JTD+94, KSS03, KSSG04, LSS86, Saa80c, Saa85c, SCS12, TS12, ZS08, ZCS14]. **Methods** [BTS+89, CCSY98, CS14, DS91b, GS92a, LS17, PSS92, SS81, SS85c, SS85e, SS85f, SS86a, Saa87b, SS87, Saa91b, Saa92e, Saa93b, Saa97, SCS10, Saa11a, Saa11b, SSW98, SÖS+00, TS11, ACSS12, BSS09, BS87, BS89, BS90, BS91, CSS02, CS85b, rFS09, Fit86, GS90b, GS92b, GGL94, JSS87, JSS07, KS92, KCS09, KCS11, Saa80a, Saa80b, Saa81, Saa82a, Saa82b, Saa83d, Saa83b, Saa83e, Saa84c, Saa87a, Saa88d, Saa89a, Saa90b, Saa90d, Saa91c, Saa92g, Saa92f, Saa98, Saa01, Saa03b, Saa20, SS98b]. **minimal** [SS86c, SW93, SW96b]. **minimum** [Saa00b]. **Minneapolis** [BTS+89, GGL94]. **Minnesota** [BTS+89, GGL94]. **MIQR** [LS06]. **Modeling** [PSS92, Fit86]. **models** [Saa91c]. **modern** [CSS02, SSC04]. **Modification** [MOKS12]. **Modified** [CS99, Saa84a, Saa86b]. **module** [SW94, SW95, SW96a]. **Molecular** [CJWS96, BGB+10, JTD+94]. **molecular-dynamics** [JTD+94]. **molecules** [CTWS94]. **moment** [Saa84a, Saa86b]. **Multi** [Saa96, Saa92c, SSZ98, SZ99c, SZ01]. **Multi-Elimination** [Saa96, Saa92c]. **multi-level** [SSZ98, SZ99c, SZ01]. **Multicolor** [ZXS20, SS99b]. **Multielimination** [SZ99a]. **Multigrid** [CS85a, CS86]. **Multilevel** [BS05b, KXS18, LS06, SZ99a, SZ99b, Saa05, SrFS08, LSS03a, OKLS15, SS02b, SST04, SSC04, US19, XLS16]. **multiple** [KMB+18]. **Multiprocessor** [CS85a, CSS85, CS86, ISS84, ISS86, CSS87]. **Multiprocessors** [SS85c, Saa85a, JSS87, SS81, Saa86c]. **multisecant** [rFS09]. **Multistage** [HS06]. **Multivariate** [CS14].

N [Saa83c]. **nanocrystals** [CTSZ07, CZC+09]. **Neighborhood** [KS07, KS05b]. **News** [Saa95]. **Newton** [BS94, WSS98]. **NN** [CrFS09]. **Non** [SS99c]. **Non-standard** [SS99c]. **nonlinear** [BS87, BS89, BS90, BS91, BS94, EGMS20, rFS09, KS92, SGSM15]. **Nonsymmetric** [LSS03b, MS92, MS93, MS07b, Saa84b, SS85g, Saa85b, ESS86, Saa83a, Saa84c, SS86c, Saa87c, Saa88a, Saa88b, Saa88c, Saa89b]. **normal** [BSS09]. **North** [BCEP94]. **null** [ITS07]. **null-space** [ITS07]. **number** [Saa86e]. **numbers** [Saa84a, Saa86b]. **Numerical** [PSS92, Saa83b, Saa87b, Saa89b, Saa90c, Saa92g, SCS10, Saa11b, Saa87a, Saa91c].

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GS88a, GS89b, GS89c, GS89a, GS89d, GHS10, LSS03a, LLCS02, SS80, Saa87a, SS89b, Saa92c, Saa94c, SW95, SW96a, SKL+97, SS99b, SSC04, AGPS03, ASSS11]. **Parlett** [Saa83c]. **pARMS** [LSS03a, SS02a]. **Partial** [CSS85, DS91b, Saa85b, XS16, CSS87, Saa88d]. **partially** [BSTC05]. **Particle** [LLCS02]. **partitioned** [CS97d]. **partitioning** [GS94, LLCS02, Saa74a, VSS14]. **Passing** [Saa87b, Saa87a, WS93]. **Performance** [WS93]. **periodic** [AJT+07]. **Phase** [WGSC18]. **physical** [CSS02, SSC04]. **Pivoting** [BS02b, BS02a, LS05a]. **plane** [JKSC99, Saa83a, Saa84a, Saa86b, Saa86e, Saa87c]. **plane-wave** [JKSC99]. **PMAA** [AGPS03]. **PMAA'10** [ASSS11]. **Point** [LS03, LSS03b]. **pole** [Saa88d]. **Polynomial** [BKS08, CAS11, FSUS20, LXV+16, YXS21, GS90b, LXSdH20, Saa85c]. **polynomials** [Saa83d, Saa83a, Saa87c, SSS10]. **portable** [SKL+97]. **Positive** [SS80, VSS14]. **posteriori** [CS18]. **potential** [CTS93, CTS94]. **power** [ZXS21]. **Practical** [BTS+89, Saa84c, Saa85c, BTS+89]. **Preconditioned** [CCSY98, CS14, SS85f, SS86a, Saa91b, Saa93b, Saa98, LS13b, Saa91a, Saa92f, Saa93a]. **Preconditioner** [BS02b, DKXS18, LS05b, LS06, Saa96, SZ99a, SZ99b, XS17, BS02a, CS97c, Saa92c, XLS16, ZXS20, ZXS21]. **Preconditioners** [BS05b, CS94, CS98b, LS13a, LS17, LS03, LSS03b, MS92, MS93, MS94, CS97a, CSW00, CS97e, CS97f, GSS03, LXS16, Saa94c, SZ99c, Saa07]. **Preconditioning** [CS98a, KSS03, KSSG04, OKS10, Saa88a, Saa88b, Saa88c, SAD+00, Saa03a, SMSW00, SSF93, YXS21, LXSdH20, OKLS15, SS99b, SZ01, SSF95, VSS14, WSS98]. **preconditionings** [Saa85c]. **Predicting** [SÖS+00, CTJ+95]. **Preserving** [CCSY98, KS07, KS05b]. **Prewhitening** [SS14]. **primitives** [WS93]. **principles** [AJT+07]. **probing** [TS12]. **Problem** [NBS10, NBS12, CKV+03, SCS12, Saa83c]. **Problems** [BSS10, DS91b, rFS12, GGL94, IS85, LS06, LXV+16, LS03, LSS03b, MS07b, PS89, Saa84b, Saa11b, Saa16, SSF93, XLS18, CSW00, DS91a, EGMS20, FRSY96, IS86b, KLS16, KKPS18, Saa82b, Saa83a, Saa83b, Saa83e, Saa89b, Saa90d, Saa92g, SSC+96, SAD+00, SST04, SSF95, WSS98, ZS08]. **Procedure** [rFS12, AKS17]. **Proceedings** [BTS+89, Fit86, BCEP94]. **Process** [BSS10]. **Processing** [FSUS20]. **processors** [SSS85]. **Projection** [BS91, KS07, Saa82b, Saa83e, Saa88d, Saa91c, Saa92h, ITS07, Saa80a, Saa82a]. **Projection-Based** [KS07]. **Projections** [KS07, KS05b]. **Properties** [SS85b, SS88, SÖS+00, CTJ+95, CTSZ07, CZC+09]. **Proxy** [YXS21]. **Proxy-GMRES** [YXS21]. **pseudo** [CTS93, CTS94]. **pseudo-potential** [CTS93, CTS94]. **pseudopotential** [CTWS94, JTD+94]. **pseudopotentials** [CKV+03]. **PSPARSLIB** [SS98a]. **purpose** [Saa92a].

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