Sebastien VARRETTE, PhD

Research Associate
specialized in Distributed Platforms Security and HPC/Cloud systems.
10 years of experience in Linux HPC systems

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Born on November 27th, 1979 (in France)
Married (2004), two children (2007,2010)

ENGINEER EXPERTISE:	High Performance Computing (HPC), Grid, Cluster & Cloud Platforms.
	I'm administrating cluster-based HPC systems since 2003 (Linux environment)
	Keywords: HPC, Debian, Xen, Puppet, OpenLDAP, git

MAIN RESEARCH DOMAINS: Security and Evaluation of Distributed Computing Platforms (clusters, grids or clouds).
Relevant contributions in which I'm involved:
- Code Obfuscation [28, 27] , CERTICLOUD, a Cloud IaaS secure platform [34, 51, 16]
- Crash/cheating faults analysis in grid platforms [49, 48, 44, 1, 40, 36, 17]
- Performance evaluation & Energy efficiency of HPC/Cloud platforms [43, 38, 29, 30]
- Design of the authentication system of Grid5000 [46]
- Developing security awareness by education [5, 7, 2]

Education

2007	PH.D. IN COMPUTER SCIENCE, with honours (*Excellent/Outstanding*)
	University of Luxembourg (UL) & Institut National Polytechnique de Grenoble (INPG)
	Thesis: *Security in Large Scale Distributed Systems: Authentication and Result Checking*
	Advisors: Franck Leprévost (UL) & Jean-Louis Roch (INPG)
2003	M.SC. IN COMPUTER SCIENCE with honours (*TB/First Class*)
	Speciality: Cryptology, Security and Information Coding (CSCI), rank: 1st
	Institut National Polytechnique de Grenoble (INPG) & University Joseph Fourier (UJF)
2003	MASTER'S DEGREE IN ENGINEERING (Telecoms ENSIMAG) with honours (*B/2.1*)
	Speciality: Computer Sciences and Telecommunications rank: top 10%
1997 – 2000	ADVANCED MATHEMATICS AND PHYSICS STUDIES
	For the competitive entrance to the French engineering schools
1997	SCIENTIFIC "BACCALAURÉAT" (French "A" levels) with honours (*B/2.1*)

Employment

2011 – now	RESEARCH ASSOCIATE (UL, Luxembourg)
2007 – 2010	SCIENTIFIC COLLABORATOR (UL, Luxembourg)
2004 – 2007	RESEARCH ASSISTANT (UL, Luxembourg)
2003	SYSTEM ADMINISTRATOR (ID-IMAG, Grenoble, France)

Teaching Experience

2008 – now	PARALLEL & GRID COMPUTING, MIDDLEWARE	Master MICS2 (UL)
2004 – 2007	PROGRAMMING TECHNIQUES I	Bachelor I1/CUT1 (UL)
	ADVANCED PROGRAMMING IN C, C++ AND JAVA	Bachelor I2 (UL)
	SYSTEM ADMINISTRATION AND NETWORK SECURITY	Master CSCI2 (UJF)
2006	CRYPTOLOGY AND NETWORK SECURITY	
	Master in Computer Science (Univ. of Yaoundé I, Cameroon)	

Additional Information

Languages	FRENCH (native language), ENGLISH (fluent) and GERMAN (basic knowledge)
Sports	Karate (Black belt – 2nd DAN, Federal Instructor Diploma (DIF)), Jogging, Badminton, Ski etc.

Graduate Students Supervision

PhD.	Jakub Muszyński (2011 –)	Integrity aspects on grid and cloud platforms
	Benoît Bertholon (2010 – 2013)	CertiCloud & JShadObf: Toward Integrity and Software Protection in Cloud Computing Platforms
Master	Ludovic Schoepps (2014)	Design a REST API service to Monitor UL HPC Resources
	Anna Giannakou (2013)	Energy Efficiency in HPC environments
	Valentin Plugaru (2012 –)	Energy Efficiency of Hypervisors and Cloud middleware
	Sébastien Martinez (2012)	Source Code Obfuscation by mean of Evolutionary Algorithms
	Fotis Georgatos (2012 – 2014)	System administrator of the UL HPC facility
	Mateusz Guzek (2011)	System administration of cluster-based HPC systems
	Benoît Bertholon (2009)	Integrity issues in distributed executions
	Christophe Weis (2009)	Optimizing hash functions and S-Box by GEP
	Dominic Dunlop (2008 – 2009)	Using GAs to tune benchmarks for HPCs
	Romain Cavagna (2007 – 2008)	Deployment of a GForge platform
Bachelor	Hyacinthe Cartiaux (2011 –)	System administrator of the UL HPC facility
	Bernard Reichert (2008)	Collision detection implementation using CUDA

Research Projects

2007 – now	UL HPC (UL cumulative contribution: **5.7 M€**)
2014 – now	EU COST Action IC1305: Network for Sustainable Ultrascale Computing (NESUS)
2011 – 2013	UL EvoPerf (UL contribution: 373 k€)
2010 – 2012	FNR CORE GreenIT (Total: 1,5 M€, FNR contribution: 432 k€)
2010 – 2012	AFR PhD Bertholon (PHD-09-142; Scientific Advisor; Total/AFR contribution: 110 k€) Confidentiality and Integrity Issues over Cloud Computing Platforms
2009 – 2013	EU COST Action IC0804: Energy efficiency in large scale distributed systems
2009 – 2013	EU CoreGrid
2006 – 2008	ANR SafeScale-BGPR (ANR-05-SSIA-0005; ANR contribution: 68 k€)
2005 – now	Grid'5000 (technical committee)
2005 – 2007	FNR-SECOM TeseGrad (FNR contribution: 300 k€)
2004 – 2007	CryptAlpes
2004 – 2006	RagTime (Total: 545 k€, Rhône-Alpes Region contribution: 217 k€)

Professional Development

	IEEE Computer and Computational Intelligence society member
	Organizer of various conferences
2009 – now	Technical advisor for LCSB and the MECO Ministry on HPC projects
2007 – now	UL HPC Manager.
	Cumulative Project Investment: 5.7 M€ (as of 2013).
	368 computing nodes, 4112 cores, $R_{\mathrm{peak}} = 43.52$ TFlops
	150 servers (74,6% are Xen VMs)
	NFS and Lustre Storage (Total raw capacity: 1996TB)
	2 system administrators + 1 student assistant
2007 – now	Manager of various IT services (Gforge @ Uni.lu, Jabber etc.)
2006	EGIDE mission for 3 weeks in Cameroon (master lecture – Univ. of Yaoudé I)
2005	Editorial Committee for the definition of new UL master and bachelor degrees
2005 – 2006	Editorial Committee, UL website (CMS selection & management)
2005 – 2006	Faculty Council, elected member (assistant representative)
2000 – 2002	Ensimag Junior Enterprise, developer member

Publications

Publication category	Quantity
PhD Thesis	1
Books	4
Magazine	1
Book Chapters	7
International journals	5
International conferences with proceedings and reviews	32
(French) national conferences with proceedings and reviews	4
International conferences with proceedings	1
International conferences with reviews	7
Masters Thesis	1
Technical Reports	8
Miscellaneous	1
Total:	**72**

PhD Thesis (**1**)

[1] S. Varrette. *Sécurité des Architectures de Calcul Distribué: Authentification et Certification de Résultats*. PhD thesis, INP Grenoble and Université du Luxembourg, Sept. 2007. In French.

Books (**4**)

[2] J.-G. Dumas, J.-L. Roch, E. Tannier, and S. Varrette. *Foundations of Coding: Compression, Encryption, Error-Correction*. Wiley & Sons, 2014. 427 pages, To appear.

[3] J.-G. Dumas, J.-L. Roch, E. Tannier, and S. Varrette. *Théorie des Codes : Compression, Cryptage et Correction*. Collection Sciences Sup. Dunod, 2nde edition, Mars 2014. 384 pages, in French.

[4] S. Varrette and N. Bernard. *Programmation avancée en C (avec exercices et corrigés)*. Collection Informatique et Systèmes d'Informations. Hermès, Fev. 2007. 416 pages, in French.

[5] J.-G. Dumas, J.-L. Roch, E. Tannier, and S. Varrette. *Théorie des Codes : Compression, Cryptage et Correction*. Collection Sciences Sup. Dunod, 1st edition, Mars 2007. 352 pages, in French. Corrected version published in 2009.

Magazine (**1**)

[6] S. Varrette and S. Gautier. Cryptographie et Signatures Eléctoniques. In *I-mag – Magazine de l'AAE ENSIMAG*, number 37 in Numéro spécial : La sécurité des systèmes d'information numérique, pages 12–19. Association des anciens élèves de l'ENSIMAG, May 2006.

Book Chapters (**7**)

[7] B. Bertholon, C. Cérin, C. Coti, J.-C. Dubacq, and S. Varrette. *Distributed Systems (volume 1); Design and Algorithms*, volume 1, chapter Practical Security in Distributed Systems, pages 237–300. Whiley, 2011.

[8] C. Cérin, J.-C. Dubacq, T. Hérault, R. Keryell, J.-L. Pazat, J.-L. Roch, and S. Varrette. *Systèmes répartis en action : de l'embarqué aux systèmes à large échelle*, chapter Sécurité dans les grilles de calcul, pages 153–180. IC2 Informatique et systèmes d'information. Hermès, Nov 2008. 184 pages, in French.

[9] P. Bouvry, J.-G. Dumas, R. Gillard, J.-L. Roch, and S. Varrette. *Sécurité Multimédia: Cryptographie et Sécurité Systèmes et Réseaux*, volume 2 of *Traités IC2 Informatique - Commande - Communication*, chapter Cryptographie à Clé Secrète, pages 23–101. Hermès, Fev 2006. In French.

[10] J.-G. Dumas, F. Leprevost, J.-L. Roch, V. Savin, and S. Varrette. *Sécurité Multimédia: Cryptographie et Sécurité Systèmes et Réseaux*, volume 2 of *Traités IC2 Informatique - Commande - Communication*, chapter Cryptographie à Clé Publique, pages 103–196. Hermès, Fev 2006. In French.

[11] J-G Dumas, F. Leprevost, J-L Roch, and S. Varrette. *Sécurité Multimédia: Cryptographie et Sécurité Systèmes et Réseaux*, volume 2 of *Traités IC2 Informatique - Commande - Communication*, chapter Architectures PKI, pages 187–210. Hermès, Fev 2006. In French.

[12] N. Bernard, Y. Denneulin, and S. Varrette. *Sécurité Multimédia: Cryptographie et Sécurité Systèmes et Réseaux*, volume 2 of *Traités IC2 Informatique - Commande - Communication*, chapter Sécurite UNIX, pages 211–245. Hermès, Fev 2006. In French.

[13] N. Bernard, Y. Denneulin, and S. Varrette. *Sécurité Multimédia: Cryptographie et Sécurité Systèmes et Réseaux*, volume 2 of *Traités IC2 Informatique - Commande - Communication*, chapter Sécurité Réseau, pages 247–298. Hermès, Fev 2006. In French.

International journals (5)

[14] M. Guzek, S. Varrette, V. Plugaru, J. E. Pecero, and P. Bouvry. A Holistic Model of the Performance and the Energy-Efficiency of Hypervisors in an HPC Environment. *Intl. J. on Concurrency and Computation: Practice and Experience (CCPE)*, 2014. Accepted for publication, pending details.

[15] F. Caldeira, T. Schaberreiter, S. Varrette, E. Monteiro, P. Simões, D Khadraoui, and P. Bouvry. Trust Based Interdependency Weighting for On-line Risk Monitoring in Interdependent Critical Infrastructures. *Intl. Journal of Secure Software Engineering (IJSSE)*, 4(4):47–69, Oct–Dec 2013.

[16] B. Bertholon, S. Varrette, and P. Bouvry. CertiCloud: une plate-forme Cloud IaaS sécurisée. *Technique et Science informatiques (2012)*, 31(8-10)(2592):1121–1152, Dec 2012.

[17] J. Muszyński, S. Varrette, P. Bouvry, F. Seredyński, and S. U. Khan. Convergence Analysis of Evolutionary Algorithms in the Presence of Crash-Faults and Cheaters. *Intl. Journal. of Computers and Mathematics with Applications (CAMWA)*, 64(12):3805–3819, Dec 2012.

[18] F. Leprevost, J. Monnerat, S. Varrette, and S. Vaudenay. Generating anomalous elliptic curves. *Information Processing Letters*, 93(5):225–230, March 2005.

International conferences with proceedings and reviews (32)

[19] J. Muszyński, S. Varrette, J.L. Jiménez Laredo, and P. Bouvry. Analysis of the Data Flow in the Newscast Protocol for Possible Vulnerabilities. In *Proc. of Intl. Conf. on Cryptography and Security System (CSS'14)*, Communications in Computer and Information Sciences (CCIS), Lublin, Poland, Sept 2014. Springer.

[20] S. Varrette, P. Bouvry, H. Cartiaux, and F. Georgatos. Management of an Academic HPC Cluster: The UL Experience. In *Proc. of the 2014 Intl. Conf. on High Performance Computing & Simulation (HPCS 2014)*, Bologna, Italy, July 2014. IEEE.

[21] B. Bertholon, S. Varrette, and P. Bouvry. Comparison of Multi-objective Optimization Algorithms for the JShadObf JavaScript Obfuscator. In *Proc. of the 17th Intl. Workshop on Nature Inspired Distributed Computing (NIDISC 2014), part of the 28th IEEE/ACM Intl. Parallel and Distributed Processing Symposium (IPDPS 2014)*, Phoenix, Arizona, USA, May 19–23 2014. IEEE Computer Society.

[22] S. Varrette, M. Guzek, V. Plugaru, X. Besseron, and P. Bouvry. HPC Performance and Energy-Efficiency of Xen, KVM and VMware Hypervisors. In *Proc. of the 25th Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2013)*, pages 89–96, Porto de Galinhas, Brazil, Oct. 2013. IEEE Computer Society.

[23] V. Delplace, P. Manneback, F. Pinel, S. Varrette, and P. Bouvry. Comparing the Performance and Power Usage of GPU and ARM Clusters for Map-Reduce. In *Proc. of the 3rd Intl. Conf. on Cloud and Green Computing (CGC'13)*, pages 199–200. IEEE Computer Society, Oct. 2013.

[24] T. Schaberreiter, S. Varrette, P. Bouvry, J Röning, and D Khadraoui. Dependency Analysis for Critical Infrastructure Security Modelling: A Case Study within the Grid'5000 Project. In *Proc. of the 3th IFIP Intl. SeCIHD'2013 Workshop, part of the 8th Intl. Conf. on Availability, Reliability and Security (ARES'13)*, volume 8128 of *LNCS*, pages 269–287, Regensburg, Germany, Sept. 2013. Springer Verlag.

[25] S. Varrette, G. Danoy, M. Guzek, X. Besseron, and P. Bouvry. Using Data-flow analysis in MAS for power-aware HPC runs. In *Proc. of the IEEE Intl. Conf. on High Performance Computing and Simulation (HPCS'13)*, pages 158–160. IEEE Computer Society, July. 2013.

[26] J. Muszynski, S. Varrette, and P. Bouvry. Expected Running Time of Parallel Evolutionary Algorithms on Unimodal Pseudo-Boolean Functions over Small-World Networks. In *Proc. of the IEEE Congress on Evolutionary Computation (CEC'2013)*, pages 2588–2594, Cancún, Mexico, June 2013. IEEE.

[27] B. Bertholon, S. Varrette, and P. Bouvry. JShadObf: A JavaScript Obfuscator based on Multi-objective Optimization Algorithms. In *Proc. of the IEEE Intl. Conf. on Network and System Security (NSS 2013)*, volume 7873 of *LNCS*, pages 336–349, Madrid, Spain, June 2013. Springer Verlag.

[28] B. Bertholon, S. Varrette, and S. Martinez. ShadObf: A C-source Obfuscator based on Multi-objective Optimization Algorithms. In *Proc. of the 16th Intl. Workshop on Nature Inspired Distributed Computing (NIDISC 2013), part of the 27th IEEE/ACM Intl. Parallel and Distributed Processing Symposium (IPDPS 2013)*, pages 435–444, Boston (Massachusetts), USA, May 20–24 2013. IEEE Computer Society.

[29] M. Guzek, S. Varrette, V. Plugaru, J. E. Sanchez, and P. Bouvry. A Holistic Model of the Performance and the Energy-Efficiency of Hypervisors in an HPC Environment. In *Proc. of the Intl. Conf. on Energy Efficiency in Large Scale Distributed Systems (EE-LSDS'13)*, volume 8046 of *LNCS*, pages 133–152, Vienna, Austria, Apr 2013. Springer Verlag.

[30] M. Jarus, S. Varrette, A. Oleksiak, and P. Bouvry. Performance Evaluation and Energy Efficiency of High-Density HPC Platforms Based on Intel, AMD and ARM Processors. In *Proc. of the Intl. Conf. on Energy Efficiency in Large Scale Distributed Systems (EE-LSDS'13)*, volume 8046 of *LNCS*, pages 182–200, Vienna, Austria, Apr 2013. Springer Verlag.

[31] J. Muszyński, S. Varrette, J. L. Jimenez Laredo, B. Dorronsoro, and P. Bouvry. Convergence of Distributed Cellular Evolutionary Algorithms in Presence of Crash Faults and Cheaters. In *Proc. of the Intl. Conf. on Metaheuristics and Nature Inspired Computing (META'12)*, Sousse, Tunisia, Oct. 27–31 2012.

[32] S. Varrette, J. Muszyński, and P. Bouvry. Hash function generation by means of Gene Expression Programming. In *Proc. of Intl. Conf. on Cryptography and Security System (CSS'12)*, Kazimierz Dolny, Poland, Sept 2012. Annales UMCS ser. Informatica.

[33] C. J. Barrios Hernandez, D. A. Sierra, S. Varrette, and D. Lopez Pacheco. Energy Efficiency on Scalable Computing Architectures. In *11th IEEE Intl. Conf. on Computer and Information Technology (CIT'11)*, pages 635–640, Paphos, Cyprus, Sept 2011. IEEE Computer Society.

[34] B. Bertholon, S. Varrette, and P. Bouvry. CertiCloud: a Novel TPM-based Approach to Ensure Cloud IaaS Security. In *Proc. of the 4th IEEE Intl. Conf. on Cloud Computing (CLOUD 2011)*, pages 121–130, Washington DC, USA, July 4–9 2011. IEEE Computer Society.

[35] B. Bertholon, S. Varrette, and P. Bouvry. A Signature Scheme for Distributed Executions based on Control flow Analysis. In *Proc. of the 19th Intl. conference on Security and Intelligent Information Systems (SIIS 2011)*, volume 7053 of *LNCS*, pages 85–102, Warsaw, Poland, June 13–14 2011. Springer Verlag.

[36] S. Varrette, E. Tantar, and P. Bouvry. On the Resilience of [distributed] Evolutionary Algorithms against Cheaters in Global Computing Platforms. In *Proc. of the 14th Intl. Workshop on Nature Inspired Distributed Computing (NIDISC 2011), part of the 25th IEEE/ACM Intl. Parallel and Distributed Processing Symposium (IPDPS 2011)*, Anchorage (Alaska), USA, May 16–20 2011. IEEE Computer Society.

[37] J. Pecero, S. Varrette, and P. Bouvry. Scheduling DAG Applications on Multi-core Processor Packages Architectures. In *Proc. of the Intl. Conf. on Metaheuristics and Nature Inspired Computing (META'10)*, Oct. 27–31 2010.

[38] D. Dunlop, S. Varrette, and P. Bouvry. Deskilling HPL - Using an Evolutionary Algorithm to Automate Cluster Benchmarking. In *Proc. of 8th Intl. Conf. on Parallel Processing and Applied Mathematics - Part II (PPAM 2009)*, volume 6068 of *LNCS*, pages 102–114, Wroclaw, Poland, Sept. 13–16 2009. Springer Verlag. Publication appeared in 2010.

[39] G. Berhe, B. Peters, S. Varrette, and P. Bouvry. Parallel Implementation of Domain Decomposition Algorithm for Molecular Dynamics. In *Proc. of the 1st Intl. Conf. on Parallel, Distributed and Grid Computing for Engineering (PARENG 2009)*, volume CCP.90-8, Pécs, Hungary, Apr. 6–8 2009. Civil-Comp Press.

[40] S. Guelton, T. Gautier, J.-L. Pazat, and S. Varrette. Dynamic Adaptation Applied to Sabotage Tolerance. In *Proc. of the IEEE 17th Euromicro Intl. Conf. on Parallel, Distributed, and Network-Based Processing (PDP 2009)*, pages 237–244, Weimar, Germany, Feb 18–20 2009. IEEE Computer Society.

[41] S. Varrette, M. Ostaszewski, and P. Bouvry. Nature inspired Algorithm-Based Fault Tolerance on Global Computing Platforms. Application to Symbolic Regression. In *Proc. of the Intl. Conf. on Metaheuristics and Nature Inspired Computing (META'08)*, Hammamet, Tunisia, Oct. 29–31 2008.

[42] S. Varrette, J.-L. Roch, G. Duc, and R. Keryell. Building Secure Resources to Ensure Safe Computations in Distributed and Potentially Corrupted Environments. In *Proc. of Euro-Par 2008, Workshop on Secure, Trusted, Manageable and Controllable Grid Services (SGS'08)*, volume 5415 of *LNCS*, pages 211–222, Las Palmas de Gran Canaria, Spain, Aug. 25–26 2008. Springer Verlag.

[43] D. Dunlop, S. Varrette, and P. Bouvry. On the Use of a Genetic Algorithm in High Performance Computer Benchmark Tuning. In *Proc. of the IEEE Intl. Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'08)*, pages 105–113, Edinburgh, UK, June 16–18 2008. IEEE Xplore.

[44] J.-L. Roch and S. Varrette. Probabilistic Certification of Divide & Conquer Algorithms on Global Computing Platforms. Application to Fault-Tolerant Exact Matrix-Vector Product. In *Proc. of the ACM Intl. Workshop on Parallel Symbolic Computation'07 (PASCO'07)*, pages 88–92, London, Ontario, Canada, July 27–28 2007. ACM.

[45] S. Varrette, J.-L. Roch, J. Montagnat, L. Seitz, J.-M. Pierson, and F. Leprévost. Safe Distributed Architecture for Image-based Computer Assisted Diagnosis. In *Proc. of the IEEE Intl. Conf. on Pervasive Services, Workshop on Health Pervasive Systems (HPS'06)*, Lyon, France, June 26–29 2006. IEEE Computer Society.

[46] S. Varrette, S. Georget, J. Montagnat, J.-L. Roch, and F. Leprevost. Distributed Authentication in GRID5000. In *Proc. of OTM Confederated Int. Workshops on Grid Computing and its Application to Data Analysis (GADA'05)*, volume 3762 of *LNCS*, pages 314–326, Agia Napa, Cyprus, Nov. 1 2005. Springer Verlag.

[47] N. Dagorn, N. Bernard, and S. Varrette. Practical Authentication in Distributed Environments. In *Proc. of the IEEE Intl. Computer Systems and Information Technology Conference (ICSIT'05)*, volume 1, Alger, Algeria, July 19–21 2005.

[48] A.Krings, J.-L. Roch, S. Jafar, and S. Varrette. A Probabilistic Approach for Task and Result Certification of Large-scale Distributed Applications in Hostile Environments. In *Proc. of the European Grid Conference (EGC2005)*, volume 3470 of *LNCS*, pages 323–333, Amsterdam, Netherlands, Feb. 14–16 2005. Springer Verlag.

[49] S. Varrette, J.-L. Roch, and F. Leprevost. FlowCert : Probabilistic Certification for Peer-to-Peer Computations. In *Proc. of the 16th Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2004)*, pages 108–115, Foz do Iguaçu, Brazil, Oct. 2004. IEEE Computer Society.

[50] S. Jafar, S. Varrette, and J.-L. Roch. Using Data-Flow Analysis for Resilence and Result Checking in Peer to Peer Computations. In *Proc. of the 1th Intl. Workshop on Grid and Peer-to-Peer Computing Impacts on Large Scale Heterogeneous Distributed Database Systems (GLOBE'04)*, pages 512–516, Zaragoza, Spain, Sept. 2004. IEEE Computer Society.

(French) national conferences with proceedings and reviews (4)

[51] B. Bertholon, S. Varrette, and P. Bouvry. Certicloud: une plate-forme cloud iaas sécurisée. In *Proc. des 20ème rencontres francophones du parallélisme (RenPar'20)*, St Malo, France, May 10–13 2011.

[52] S. Guelton and S. Varrette. Une approche génétique et source à source de l'optimisation de code. In *Proc. des 19ème rencontres francophones du parallélisme (RenPar'19)*, Toulouse, France, Sept. 9–11 2009.

[53] S. Varrette, S. Georget, J.-L. Roch, and F. Leprevost. Authentification Distribuée sur Grille de Grappes basée sur LDAP. In *Proc. des 16èmes rencontres francophones du parallélisme (RenPar'16)*, Le Croisic, France, April 6–8 2005. ASF - Ecole des Mines de Nantes.

[54] S. Varrette and J.-L. Roch. Certification logicielle de Calcul Global avec dépendances sur grille. In *Proc. des 15èmes rencontres francophones du parallélisme (RenPar'15)*, pages 169–176, La-Colle-Sur-Loup, France, Oct. 15–17 2003.

International conferences with proceedings (1)

[55] S. Varrette, J.-L. Roch, Y. Denneulin, and F. Leprevost. Secure Architecture for Clusters and Grids. In *Proc. of the 2nd Int. Conf. on Critical Infrastructures (CRIS 2004)*, Grenoble, France, October 2004. IEEE.

International conferences with reviews (7)

[56] M. Muszyński, S. Varrette, and P. Bouvry. On the Resilience of the Newscast Protocol in the Presence of Cheaters. In *2014 Grande Region Security and Reliability Day (GRSRD 2014)*, Saarbrücken, Germany, Mar. 2014.

[57] S. Varrette, M. Muszyński, and P. Bouvry. Cheating impact on distributed Evolutionary Algorithms over BOINC computations. In *Proc. of the 19th Intl. conference on Security and Intelligent Information Systems (SIIS 2011)*, Warsaw, Poland, June 13–14 2011. Extended Abstract.

[58] B. Bertholon, S. Varrette, and P. Bouvry. TPM-based Approaches to Improve Cloud Security. In *2011 Grande Region Security and Reliability Day (SecDay 2011)*, Trier, Germany, Mar. 25 2011.

[59] S. Varrette, B. Bertholon, and P. Bouvry. A Signature Scheme for Distributed Executions based on Macro-Dataflow Analysis. In *2nd Intl. Workshop on Remote Entrusting (Re-Trust 2009)*, Riva del Garda, Italy, Sept 2009.

[60] S. Varrette, J.-L. Roch, and A. Krings. Result Certification Against Massive Attacks in Distributed Computations. In *1th Int. Workshop on Remote Entrusting (Re-Trust 2008)*, Trento, Italy, Oct 2008.

[61] S. Varrette. Security of Global Computing Platforms: Authentication and Computed Results Integrity. In *Conference on Cryptology and Digital Content Security (CRM 07)*, Barcelona, Spain, may 2007.

[62] S. Varrette, J.-L. Roch, and F. Leprévost. Applicative solutions for safe computations in distributed environments. In *Workshop "Trustworthy Software"*, Saarbrücken, Germany, May 2006. Dagstuhl Research Online Publication Server (DROPS). Version electronique uniquement.

Masters Thesis (1)

[63] S. Varrette. Sécurisation de calculs pairs à pairs sur une grille de grappes. Rapport de Projet de Fin d'Etude, ENSIMAG, Laboratoire ID-IMAG UMR CNRS/INPG/INRIA/UJF 5132, June 2003. In french.

Technical Reports (8)

[64] V. Plugaru, F. Georgatos, S. Varrette, and P.Bouvry. Performance tuning of applications for HPC systems employing Simulated Annealing optimization. Technical report, Univ. of Luxembourg, 2014.

[65] Sébastien Varrette. Programmation de l'algorithme A.E.S. (Advanced Encryption Standard). Technical report, University of Luxembourg, 2005.

[66] S. Varrette. Programmation de l'algorithme D.E.S. (Data Encryption Standard). Technical report, University of Luxembourg, 2005.

[67] S. Varrette. Tutorial LaTeX - Comprendre et écrire un document en LaTeX. Technical report, Laboratoire ID-IMAG, Mai 2005. Version 0.3.

[68] S. Varrette. Tutorial d'installation d'un lecteur de cartes à puce usb sous linux. Technical report, Laboratoire ID-IMAG/Université du Luxembourg, Juin 2005. Version 0.1 - a compléter.

[69] S. Varrette. Introduction aux réseaux de tri tolérants aux fautes. Technical report, Laboratoire ID-IMAG, Aug. 2005. Draft version.

[70] S. Varrette. Tutorial OpenLDAP: Installation et configuration, Migration NIS → LDAP dans GRID5000, Sécurisation par SSL et optimisations. Technical report, Laboratoire ID-IMAG, Septembre 2005.

[71] S. Varrette. Tutorial d'installation de la distribution debian. Technical report, Laboratoire ID-IMAG, Septembre 2005. Extrait d'un TP proposé en Master 2 CSCI.

Miscellaneous (1)

[72] S. Martinez, S. Varrette, and B. Bertholon. Optimisation d'obfuscation de code source au moyen d'algorithmes évolutionnaires multi-objectifs. [Poster] - ComPAS'13, Jan 2013.