Curriculum Vitæ

Sébastien Tixeuil

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Current Status

Associate Professor since 2000, on leave at INRIA Futurs since september 2005.

Research :

- Laboratoire de Recherche en Informatique, UMR CNRS 8623 ;
- INRIA Futurs (team "Grand Large").

Teaching :

- Master 2 Research "Fundamentals of Distributed Computing" (Univ. Paris-Sud)
- Master 2 Research "Sensor Networks" (Univ. Paris-Sud)

1 Academia

- Habilitation to supervize research (*Toward Self-stabilizing Large-scale Systems*) from the Univ. Paris-Sud, May 2006. The committee was composed of Joffroy Beauquier, Shlomi Dolev, Sukumar Ghosh (reviewer), Serge Haddad (president), Michel Raynal (reviewer), André Schiper (reviewer).

- Ph.D. in Computer Science (*Efficient Self-stabilization*) from the Univ. Paris-Sud, January 2000, rank "Très Honorable" ("Very Honorable"). The committee was composed of Joffroy Beauquier, Dominique Gouyou-Beauchamps (president), Christian Lavault, Michel Raynal(reviewer) Vincent Villain (reviewer).

- Master of Science, majoring in Applied Computer Science (*Magistère d'Informatique Appliquée d'Ile de France*) from the University Pierre and marie Curie, june 1995, rank 1st.

- Master of Science, majoring in Theoretical Computer Science (*Diplôme d'Études Approfondies – Informatique Théorique*) from the Univ. Paris-Sud, september 1995, rank 2nd.

- Bachelor of Science, majoring in Mathematics and Physics (*Diplôme d'Études Universitaires Générales – Science et Structure de la Matière*) from the University Pierre and Marie Curie, june 1992, rank "Bien" ("Good").

2 Research Activities

My research is mainly focussed on fault-tolerant aspects of distributed computing, specifically on self-stabilization. Informally, a distributed algorithm is considered to be self-stabilizing if, regardless of its initial state, it satisfies its specification in finite time. Thus, the self-stabilizing algorithms are able to tolerate any transient failure that may perturb the memory of any system component.

"Classical" self-stabilization does not usually scale well. For example, it is possible that a single failure located at a single machine in the networks actually triggers actions from all other machines in the system. I worked on various notions related to self-stabilization, that enable scalability. In particular, I studied the following approaches:

1. *Time-adaptive stabilization* : we define algorithms whose stabilization time is related only to the actual number of faults that hit the system, and not the size of the network. Thus, the lower the number of faults, the faster the recovery.

2. *Predicate-preserving stabilization* : we differentiate failures from "normal" evolutions of the system (change of costs on links for example). Then, we are able to preserve predicates for "normal" changes after stabilization.

3. *Local stabilization* : some problems can be expressed in a localized way (for example, coloring the nodes of a networks such that neighboring nodes do not have the same color). For those problems, it is possible to design localized algorithms, whose stabilization time is independent of the stabilization time of other parts of the network.

I progressively shifted from purely theoretical fault tolerant distributed systems to applications of those systems. I particularly study applications of self-stabilization to routing protocols, sensor networks, large scale systems such as grids and peer to peer networks.

Since its creation in 2003, I am a permanent member of the "Grand Large" project of INRIA Futurs. This project focuses on large scale distributed systems (P2P, GRID, Sensors, etc.).

2.1 Student Supervision

2.1.1 Ph.D.

1. Since September 2006, I am advising the Ph.D. thesis of Asim Ali, on fault-tolerance of large-scale sensor networks.

2. Since September 2004, I am advising the Ph.D. thesis of William Hoarau (with Joffroy Beauquier), on the subject of fault-injection in distributed systems. The related works were published in two international conferences with program committee and proceedings (acceptance ratio 19% and 28%, respectively), and in a workshop with program committee and proceedings. Also, revised versions of conferences papers appeared as a book chapter (published by Springer) and as a journal paper in *Future Generation Computer Systems*.

3. I participated to the advising of the Ph.D. Thesis of Christophe Génolini (defended december 2000 under supervision of Joffroy beauquier). He is now an associate professor at the University of Nanterre.

2.1.2 Master of Science

1. Since 2005, I have *Associate Graduate Faculty* status at Kent State University. I am co-advising a student (with Mikhail Nesterenko) from this University, Praveen Danturi, on local mutual exclusion. The related works were published in an international conference with program committee and proceedings (acceptance ratio 28%).

2. Since 2001, I have *Associate Graduate Faculty* status at the University of Nevada Las Vegas. I co-advised several students (with Ajoy K. Datta) from this University:

   (a) Isai Arasu, from september 2003 to may 2004 ;
   (b) Venkat Krishnan, from septembre 2003 to may 2004 ;
   (c) Wei Huang, from september 2001 to october 2002 ;
   (d) Narcissa Alprecht, from april 2002 to february 2003 ;
   (e) Anthony B. Kenitzky, from march 2001 to may 2002 ;
   (f) Yu Chen, from january to december 2002.

   The works form the thesis of Anthony B. Kenitzky were published in the international conference *IEEE International Conference on Parallel and Distributed Systems*, and won the best paper award. The paper was invited for a special issue of *Journal of Information Science and Engineering*.

   The works from the thesis of Yu Chen were published in the International conference *Europar 2002*. The journal version was published in a special issue on self-stabilisation of the *Journal of High Speed Networks*.

3. I advised nine masters students in France:

   (a) Matthieu Bergounioux (Master M2 Recherche), from april to september 2006 ;
   (b) Asim Ali (Master M2 Recherche MPRI), from april to september 2006 ;
   (c) Sélim Bessassi (Master M2 Recherche), from april to december 2005 ;
   (d) Fabien Vauchelles (Master M2 Recherche), from february to september 2005 ;
   (e) William Hoarau (DEA ID), from february to september 2004 ;
   (f) Toussaint Guglielmi (DEA ID), from february to september 2004 ;
   (g) Denis Fortin (DESS ResTel), from february to september 2003.
   (h) Ludovic Cintrat (DEA ID), from february to september 2002 ;
   (i) Duy-So Nguyen (DEA ISCCA), from february to september 2002.

   The works from the thesis of Duy-So Nguyen have been published in two conferences with program committee and proceedings (*RFIV 2003* and *Algotel 2003*). The proceedings of RIVF 2003 were published in a special issue of the international journal *Studia Informatica Universalis*. The works from the thesis of Fabien Vauchelles have been published in an IEEE workshop with program committee and proceedings, and in the international journal *Future Generation Computer Systems*.

2.2 Grants and Projects

2.2.1 Responsibilities

1. I am **responsible and global coordinator** of the FRACAS project of INRIA ARC (Reliability of Autonomous Sensor Networks with Applications to Security) for 98 Keuros. This project started in January 2007 and gathers partners from LIP6 (University Paris 6), IRISA (University of Rennes), CITI (INSA Lyon), and LRI (Univ. Paris-Sud).

2. I am **responsible and global coordinator** of the FRAGILE project of the ACI «Sécurité et Informatique» FRAGILE (Failure Resilience and Application Guaranteed Integrity in Large-scale Environments) for 319 Keuros. This project started in september 2004 and gathers partners from LIAFA (University Paris 7), CITI (INSA de Lyon / INRIA Rhône-Alpes), LPD (EPFL en Suisse), LRI (Univ. Paris-Sud) and NEST (University of Iowa and Kent State). I supervise the Ph.D. thesis of William hoarau in this context.

3. I am **responsible and local coordinator for France** of a french-norvegian collaboration project (PAI AURORA EGIDE), on self-stabilization in sensor networks. This projects started in january 2006 and gathers partners from CITI (INSA de Lyon et INRIA Rhône-Alpes), LRI (Orsay), and the University of Bergen.

4. I am **responsible and local coordinator for Orsay** of the SR2I project of the ACI «Sécurité et Informatique» (Security of Interdomain Routing in the Internet) for 182 Keuros. This project started in septembre 2004 and gathers partners from LIRMM (University of Montpellier), LRI (Orsay), PRISM (University of Versailles Saint-Quentin), and AL-CATEL (industrial partner).

5. I am a member of the european network of excellence CoreGRID. For the second joint program of activity, I am **responsible for task 4.4** (Fault-tolerance and Robustness in GRIDs) and responsible of a research group. This network is interested in foundations, software infrastructure, and applications of large scale distributed systems such as GRIDs and Peer to Peer Systems.

6. I was **responsible** of the MobiCoop project of the ASTIC CNRS (Incidence of topology and geometry of exploring mobile agents) for 20 Keuros over two years. I supervised Ludovic Cintrat in this context.

2.2.2 Participations

1. I am a member of the ALPAGE (Algorithms for Large-scale Platforms), funded by the ARA «Masse de données» (started in 2005).

2. I am a member of the SOGEA (Security Of Games, Equilibria and distributed Algorithms), funded by the ARA «Sécurité des Systèmes Embarqués et Intelligence Ambiante» (started in 2005).

3. I am a member of the european action «COST 295» Dynamo (*Dynamic Communication Networks*).

4. I was a member of the project DataGRIDeXplorer (Large-scale distributed Calculus) funded by the ACI «Masse de Données» (started in 2003). I supervised William Hoarau and Toussaint Guglielmi in this context.

5. I was a member of the CNRS specific action "Dynamo" (Structural analysis and algorithms for dynamic networks) in 2002-2003.

6. I was a member of the STAR project of the ASTIC CNRS (Stabilization of Networks) in 2001-2002. I supervised Duy-So Nguyen in this context.

2.3 Scientific organization

1. I am **registration chair** of the international conference GPC 2007 (*Grip and Pervasive Computing*), to be held in Paris in June 2007.

2. I am **poster chair** of the international conference HPDC 2006 (*High Performance Distributed Computing*), held in Paris in June 2006.

3. I organize plenary meetings of the FRAGILE project of ACI «Sécurité et Informatique».

4. I was **organizing chair** of the second CoreGRID workshop on *GRID and Peer to Peer Systems Architecture*, in Paris, 16-17 January 2006 (30 participants).

5. I was **publicity chair** of the international workshop WSS 2001.

6. I was **webmaster** of the conference Algotel 2001.

7. I was a member of the organizing committee of the meeting «Réseaux et algorithmes répartis» in June 2002 (45 participants).

2.4 Journal editorial board

Since january 2005, I am a member of the editorial board of the *Revue des sciences et technologies de l'information, série «Technique et Science Informatique»*.

2.5 Conference program committee memberships

1. I am the co-chair (with Toshimitsu Masuzawa) of the Program Committee of the international conference SSS 2007.

2. I am a member of the Program Committee of the international conference GPC 2007.

3. I am a member of the Program Committee of the international workshop *Grid Programming Models, Grid and P2P System Architecture, Grid Systems, Tools and Environment* 2007.

4. I am a member of the Program Committee of the international workshop Algosensors 2007.

5. I am a member of the Program Committee of the conference Algotel 2007 (Algorithmique des télécommunications).

6. I am a member of the Program Committee of the international workshop SWAN 2006.

7. I am a member of the Program Committee of the international conference SSS 2006.

8. I am a member of the Program Committee of the international conference DISC 2006 (*Distributed Computing*).

9. I am a member of the Program Committee of the conference Algotel 2006 (Algorithmique des télécommunications).

10. I was a member of the Program Committee of the international conference IEEE *International conference on Distributed Computing Systems (ICDCS 2006)*.

11. I was a member of the Program Committee and co-editor (with Ted Herman) of the proceedings of the international conference SSS 2005 (*Symposium on Self-stabilizing Systems*).

12. I was a member of the Program Committee of the international conference IEEE *International Conference on Parallel and Distributed Systems* in 2002.

13. I was a member of the Program Committee of the international workshop *Self-stabilizing Systems* in 2001.

14. I was a member of the Program Committee and co-editor (with Sylvie Delaët, Thomas Hérault, and Colette Johnen) of the proceedings of the meeting «Réseaux et algorithmes répartis».

2.6 Reviewing

2.6.1 Ph.D.

- Stéphane Devismes, University of Picardie, France, December 2006.

- Yinnon Avraham Haviv, Ben Gurion University of the Negev, Israel, 2007.

2.6.2 Grants

- French Program ANR "Telecommunications" in 2006

- French Program ANR "Young Researchers" in 2006

- Israel Science Foundation in 2005

2.6.3 International Journals

- ACM Transactions on Computer Systems

- ACM Transactions on Sensor Networks

- Distributed Computing

- IEEE Transactions on Dependable and Secure Systems

- IEEE Transactions on Parallel and Distributed Systems

- Information Processing Letters

- Journal of Aerospace Computing, Information, and Communication

- Journal of High Speed Networks

- Journal of Parallel and Distributed Computing

- Parallel Processing Letters

- The Computer Journal

- Theoretical Computer Science

2.7 Visiting positions

- November 2006, University of Kent State, USA (1 week),

- August-September 2006, University of Bergen, Norway (2 weeks),

- April-May 2006, University of d'Osaka, Japan (5 weeks),

- December 2005, Federal University of Bahia, Brazil (2 weeks),

- April 2005, University of Kent State, USA (1 week),

- April 2005, University of Iowa, USA (1 week),

- May 2002, University of Nevada, USA (1 month),

- May 2001, University of Nevada, USA (1 month),

- September 1997-august 1998, Muller SA, France (10 months),

- September 1997, University of Nevada, USA (1 month),

- June 1997, Technion, Israel (1 month)

2.8 Awards

1. **The Wilkes Award**, *second best paper published in a volume of The Computer Journal*, granted by *The British Computer Society* on march first 2005 for the following paper:

   - Self-stabilizing Mutual Exclusion with Arbitrary Scheduler. Ajoy Kumar Datta, Maria Gradinariu, Sébastien Tixeuil. *The Computer Journal*, Volume 47(3), pp. 289-298, May 2004.

2. **Best Paper Award**, granted by *IEEE* for the following paper:

   - Self-stabilizing Wormhole Routing on Ring Networks. Ajoy K. Datta, Maria Gradinariu, Anthony B. Kenitzki, Sébastien Tixeuil. *IEEE Ninth International Conference on Parallel and Distributed Systems (ICPADS 2002)*, National Central University, Taiwan, ROC, pp. 425-430, Décembre 2002.

2.9 Publications

2.9.1 Proceedings editing

1. Ted Herman and Sébastien Tixeuil, editors. *Self-stabilizing Systems*, volume 3764 of *Lecture Notes in Computer Science*, Barcelona, Spain, October 2005. Springer Verlag.

2. Actes de la Journée «Réseaux et Algorithmes Répartis». Sylvie Delaët, Thomas Hérault, Colette Johnen, Sébastien Tixeuil. June 2002, Univ. Paris-Sud, 50 pages.

2.9.2 Book chapters

1. Sébastien Tixeuil. *Wireless Ad Hoc and Sensor Networks*, chapter Fault-tolerant distributed algorithms for scalable systems. ISTE, October 2007. ISBN: 978-1-905209-86.

2. Pierre Fraigniaud, David Ilcinkas, Sergio Rajsbaum, and Sébastien Tixeuil. *Shimon Even Festschrift*, chapter The reduced automata technique for graph exploration space lower bounds, pages 1-26. Number 3895 in *Lecture Notes in Computer Science*. Springer-Verlag Berlin Heidelberg, 2006.

3. Sébastien Tixeuil. *Réseaux mobiles ad hoc et réseaux de capteurs*, chapitre Algorithmique répartie tolérante aux pannes dans les systèmes à grande échelle, pages 251-284. Hermès, 2006.

4. William Hoarau, Luis Silva, and Sébastien Tixeuil. *Integrated Research in Grid Computing*, chapter Fault-injection and Dependability Benchmarking for GRID COmputing Middleware. CoreGRID. Springer Verlag, 2006.

2.9.3 International journals with editorial board

1. FAIL-FCI: Versatile Fault-injection. William Hoarau, Sébastien Tixeuil, and Fabien Vauchelles. *Future Generation Computer Systems*, Elsevier, to appear, 2007.

2. Sylvie Delaët, Bertrand Ducourthial, and Sébastien Tixeuil. Self-stabilization with r-operators revisited. Journal of Aerospace Computing, Information, and Communication, 2006.

3. Stabilizing Inter-domain Routing in the Internet. Yu Chen, Ajoy K. Datta, Sébastien Tixeuil. *Journal of High Speed Networks*, Volume 15(1), 2005.

4. Self-stabilizing Mutual Exclusion with Arbitrary Scheduler. Ajoy Kumar Datta, Maria Gradinariu, Sébastien Tixeuil. *The Computer Journal*, Volume 47(3), pp. 289-298, May 2004. **This paper won the runner-up Wilkes Award 2004 of The Computer Journal**.

5. Self-stabilizing Wormhole Routing on Ring Networks. Ajoy Kumar Datta, Maria Gradinariu, Anthony B. Kenitzki, Sébastien Tixeuil. *Journal of Information Science and Engineering*, Vol. 19, pp. 401-414, 2003.

6. Self-stabilization with Path Algebra. Bertrand Ducourthial, Sébastien Tixeuil. *Theoretical Computer Science*, Vol. 293, No. 1, pp. 219-236, 2003.

7. Optimal Snap-stabilizing Neighborhood Synchronizer in Tree Networks. Colette Johnen, Luc Onana Alima, Ajoy Kumar Datta, Sébastien Tixeuil. *Parallel Processing Letters*, Vol. 12, Nos. 3 & 4, pp. 327-340, 2002.

8. Tolerating Transient and Intermittent Failures. Sylvie Delaët, Sébastien Tixeuil. *Journal of Parallel and Distributed Computing*, Vol. 62, No. 5, pp. 961-981, 2002

9. Self-stabilization with r-operators. Bertrand Ducourthial, Sébastien Tixeuil. *Distributed Computing*, Vol. 14, No. 3, pp. 147-162, 2001.

10. Self-stabilizing Sorting on Tree Networks. Ajoy Kumar Datta, Sébastien Tixeuil. *Parallel Algorithms and Applications*, Vol. 16, No. 1, pp. 1-15, 2001.

11. Stabilizing Hierarchical Routing. Ajoy Kumar Datta, Jerry L. Derby, James E. Lawrence, Sébastien Tixeuil. *Journal of Interconnexion Networks*, Vol. 1, No. 4, pp. 283-302, 2000.

12. Self-stabilizing Algorithms in DAG Structured Networks. Sajal K. Das, Ajoy Kumar Datta, Sébastien Tixeuil. *Parallel Processing Letters*, Vol. 9, No. 4, pp. 563-574, Décembre 1999.

2.9.4   National journals with editorial board

1. Auto-stabilisation et Protocoles Réseau. Colette Johnen, Franck Petit, Sébastien Tixeuil. *Technique et Science Informatiques*, volume 23, numéro 8, 2004.

2. Un algorithme auto-stabilisant en dépit de communications non fiables. Sylvie Delaët, Sébastien Tixeuil. *Technique et Science Informatiques*, volume 17 numéro 5, Hermès, 1998.

2.10   International conferences with proceedings and program committee

1. Toshimitsu Masuzawa and Sébastien Tixeuil. Bounding the impact of unbounded attacks in stabilization. In Ajoy K. Datta and Maria Gradinariu, editors, Eighth International Symposium on Stabilization, Safety, and Security on Distributed Systems (SSS 2006), Lecture Notes in Computer Science, page to appear, Dallas, Texas, November 2006. Springer Verlag.

2. Toshimitsu Masuzawa and Sébastien Tixeuil. On bootstrapping topology knowledge in anonymous networks. In Ajoy K. Datta and Maria Gradinariu, editors, *Eighth International Symposium on Stabilization, Safety, and Security on Distributed Systems (SSS 2006)*, Lecture Notes in Computer Science, page to appear, Dallas, Texas, November 2006. Springer Verlag.

3. Anurag Dasgupta, Sukumar Ghosh, and Sébastien Tixeuil. Selfish stabilization. In Ajoy K. Datta and Maria Gradinariu, editors, *Eighth International Symposium on Stabilization, Safety, and Security on Distributed Systems (SSS 2006)*, Lecture Notes in Computer Science, page to appear, Dallas, Texas, November 2006. Springer Verlag.

4. Praveen Danturi, Mikhail Nesterenko, and Sébastien Tixeuil. Self-stabilizing philosophers with generic conflicts. In Ajoy K. Datta and Maria Gradinariu, editors, *Eighth*

International Symposium on Stabilization, Safety, and Security on Distributed Systems (SSS 2006), Lecture Notes in Computer Science, page to appear, Dallas, Texas, November 2006. Springer Verlag.

5. Benchmarking the OGSA-DAI Middleware. William Hoarau, Sébastien Tixeuil, Nuno Moreno, Décio Sousa, and Luis Silva. In Second Coregrid Integration Workshop, Krakow, Poland, October 2006.

6. William Hoarau, Pierre Lemarinier, Thomas Herault, Eric Rodriguez, Sébastien Tixeuil, and Franck Cappello. Fail-mpi: How fault-tolerant is fault-tolerant mpi? In *Proceedings of Cluster 2006*, Barcelona, Spain, September 2006.

7. Michaël Cadilhac, Thomas Hérault, Richard Lassaigne, Sylvain Peyronnet, and Sébastien Tixeuil. Evaluating complex mac protocols for sensor networks with apmc. In *Proceedings of AVOCS 2006*, Nancy, September 2006.

8. On Fast Randomized Colorings in Sensor Networks. Nathalie Mitton, Eric Fleury, Isabelle Guérin-Lassous, Bruno Séricola, and Sébastien Tixeuil. In *Proceedings of ICPADS 2006*, page to appear, July 2006.

9. Discovering Network Topology in the Presence of Byzantine Faults. Mikhail Nesterenko and Sébastien Tixeuil. In *Proceedings of Sirocco'2006*, Lecture Notes in Computer Science, to appear, Springer Verlag, July 2006.

10. Fault injection in distributed java applications. William Hoarau, Sébastien Tixeuil, and Fabien Vauchelles. In *International Workshop on Java for Parallel and Distributed Computing (joint with IPDPS 2006)*, page to appear, Greece, April 2006. IEEE.

11. A self-stabilizing link coloring algorithm resilient to unbounded byzantine faults in arbitrary networks. Toshimitsu Masuzawa and Sébastien Tixeuil. In *Proceedings of OPODIS 2005*, Lecture Notes in Computer Science, page to appear, Pisa, Italy, December 2005. Springer-Verlag.

12. A language-driven tool for fault injection in distributed applications. William Hoarau and Sébastien Tixeuil. In *Proceedings of the IEEE/ACM Workshop GRID 2005*, page to appear, Seattle, USA, November 2005.

13. Self-stabilization with r-operators revisited. Sylvie Delaët, Bertrand Ducourthial, and Sébastien Tixeuil. volume 3764 of *Lecture Notes in Computer Science*, page to appear, Barcelona, Spain, October 2005. Springer Verlag.

14. Self-stabilization in self-organized wireless multihop networks. Nathalie Mitton, Eric Fleury, Isabelle Guérin-Lassous, and Sébastien Tixeuil. In *Proceedings of WWAN'05*. IEEE Press, pages 909-915, june 2005.

15. Space lower bounds for graph exploration via reduced automata. David Ilcinkas, Pierre Fraigniaud, Sergio Rajsbaum, and Sébastien Tixeuil. In *Proceedings of Sirocco'2005*, Lecture Notes in Computer Science, pages 140-154. Springer Verlag, May 2005.

16. Optimal Self-stabilizing Mutual Exclusion in Synchronous Rings. Philippe Duchon, Nicolas Hanusse, Sébastien Tixeuil. *The 18th Annual Conference of Distributed Computing (DISC 2004)*, Amsterdam, Pays Bas, pp. 216-229, LNCS 3274, octobre 2004.

17. A Distributed TDMA Slot Assignment Algorithm for Wireless Sensor Networks. Ted Herman, Sébastien Tixeuil. *AlgoSensors 2004*, Turku, Finlande, LNCS 3121, pp. 45-58, Juillet 2004

18. Route Preserving Stabilization. Colette Johnen, Sébastien Tixeuil. *Sixth Symposium on Self-stabilizing Systems (SSS 2003)*, pp. 183-197, LNCS 2704, San Francisco, 2003. Fait également l'objet d'un résumé d'une page à la conférence IEEE Dependable Systems and Networks (DSN 2003).

19. Stability and Self-stabilization of BGP. Sylvie Delaët, Duy-So Nguyen, Sébastien Tixeuil. *RIVF 2003*, pp. 139-144, Hanoi, Vietnam, 2003.

20. Self-stabilizing Wormhole Routing on Ring Networks. Ajoy K. Datta, Maria Gradinariu, Anthony B. Kenitzki, Sébastien Tixeuil. *IEEE Ninth International Conference on Parallel and Distributed Systems (ICPADS 2002)*, National Central University, Taiwan, ROC, pp. 425-430, Décembre 2002. **This paper won the Best Paper Award.**

21. A Lower bound of Dynamic k-stabilization in Asynchronous Systems. Christophe Genolini, Sébastien Tixeuil. *21st IEEE Symposium on Reliable Distributed Systems (SRDS 2002)*, Osaka University, Suita, Japan, pp. 212-222, Octobre 2002.

22. Stabilizing Inter-domain Routing in the Internet. Yu Chen, Ajoy K. Datta, Sébastien Tixeuil. *Europar 2002*, Paderborn, Allemagne, pp. 749-752, LNCS 2400, August 2002. Note de Recherche.

23. On a Space-optimal Distributed Traversal Algorithm. Sébastien Tixeuil. *Fifth International Workshop on Self-stabilizing Systems (WSS'2001)*, LNCS 2194, pp. 216-228, Lisbonne, Portugal, Octobre 2001.

24. Tight Space Uniform Self-stabilizing l-Mutual Exclusion. Maria Gradinariu, Sébastien Tixeuil. *IEEE International Conference on Distributed Computing Systems (ICDCS'01)*, pp. 83-90, Phénix, Arizona, Mai 2001.

25. Self-stabilizing Vertex Coloring of Arbitrary Graphs. Maria Gradinariu, Sébastien Tixeuil. *International Conference on Principles of Distributed Computing (OPODIS'2000)*, pp. 55-70, Paris, France, Décembre 2000. Proceedings appear as a special issue of the international journal Studia Informatica Universalis.

26. Tolerating Transient and Intermittent Failures. Sylvie Delaët, Sébastien Tixeuil. *International Conference on Principles of Distributed Computing (OPODIS'2000)*, pp. 17-36, Paris, France, Décembre 2000. Proceedings appear as a special issue of the international journal Studia Informatica Universalis.

27. Self-stabilization with Path Algebra. Bertrand Ducourthial, Sébastien Tixeuil. *Sirocco 2000*, pp 95-110, L'Aquila, Italie, June 2000.

28. Self-stabilizing Mutual Exclusion Using Unfair Distributed Scheduler. Ajoy Kumar Datta, Maria Gradinariu, Sébastien Tixeuil. *IEEE International Conference on Parallel and Distributed Systems (IPDPS'2000)*, pp. 465-470, Mexique, Mai 2000.

29. Self-stabilizing Algorithms in DAG Structured Networks. Sajal K. Das, Ajoy Kumar Datta, Sébastien Tixeuil. *IEEE I-SPAN'99*, pp. 190-195, Australie, IEEE Press, June 1999.

30. Self-stabilizing Census with Cut-through Constraints. Joffroy Beauquier, Ajoy Kumar Datta, Sébastien Tixeuil. *WSS'99*, pp. 70-77, Austin, Texas, IEEE Press, June 1999.

31. Self-stabilizing Neighborhood Synchronizer in Tree Networks. Colette Johnen, Luc Onana Alima, Ajoy Kumar Datta, Sébastien Tixeuil. *IEEE ICDCS'99*, pp. 487-494, Austin, Texas, IEEE Press, June 1999.

32. Self-stabilizing Global Computations with r-operators. Bertrand Ducourthial, Sébastien Tixeuil. *International Conference on Principles of Distributed Computing (OPODIS'98)*, pp. 99-113, Amiens, France, Hermès, Décembre 1998.

33. Transient Fault Detectors. Joffroy Beauquier, Sylvie Delaët, Shlomi Dolev, Sébastien Tixeuil. *DISC'98*, LNCS 1499, pages 62-74, Grèce, Septembre 1998.

34. Self-stabilization with Global Rooted Synchronizers. Luc Onana Alima, Joffroy Beauquier, Ajoy Kumar Datta, Sébastien Tixeuil. *IEEE ICDCS'98*, Amsterdam, IEEE Press, Mai 1998.

35. A Fault Tolerant Distributed Sorting Algorithm on Tree Networks. Gianluigi Alari, Joffroy Beauquier, Joseph Chacko, Ajoy Kumar Datta, Sébastien Tixeuil. *IEEE IPCCC'98*, Phoenix, Arizona, Février 1998.

36. Self-stabilizing Token Ring. Sébastien Tixeuil, Joffroy Beauquier. *ICSE'96*, Las Vegas, Nevada, Juillet 1998.

2.10.1 National conferences with proceedings and program committee

1. Nathalie Mitton, Eric Fleury, Isabelle Guérin-Lassous, Bruno Séricola, and Sébastien Tixeuil. Convergence dans les réseaux sans fil. In *Proceedings of Algotel 2006*, page to appear. INRIA, May 2006.

2. Auto-stabilisation dans les réseaux ad hoc. Nathalie Mitton, Eric Fleury, Isabelle Guérin-Lassous, and Sébastien Tixeuil. *In Proceedings of Algotel 2005*, pages 45-48, May 2005.

3. Protocoles auto-stabilisants synchrones d'exclusion mutuelle pour les anneaux anonymes. Philippe Duchon, Nicolas Hanusse, Sébastien Tixeuil. *Rencontres Francophones sur l'Algorithmique des Télécommunications (AlgoTel 2004)*, Batz sur Mer, mai 2004.

4. Un Algorithme TDMA Réparti pour les réseaux de capteurs. Ted Herman, Sébastien Tixeuil. *Rencontres Francophones sur l'Algorithmique des Télécommunications (AlgoTel 2004)*, Batz sur Mer, mai 2004.

5. Stabilité et Auto-stabilisation du Routage Inter-Domaine dans Internet. Sylvie Delaët, Duy-So Nguyen, Sébastien Tixeuil. *Rencontres Francophones sur l'Algorithmique des Télécommunications (Algotel 2003)*, Banyuls, France, 2003.

6. Multidistribution Multi-sources Adaptative. Bertrand Ducourthial, Sébastien Tixeuil. *Rencontres Francophones sur l'Algorithmique des Télécommunications (Algotel 2001)*, pp. 135-142, St-Jean de Luz, France, Mai 2001.

7. Construction Auto-stabilisante de Forêts de Diffusion Optimale. Bertrand Ducourthial, Sébastien Tixeuil. *Rencontres Francophones sur l'Algorithmique des Télécommunications (Algotel 2000)*, pp. 149-154, La Rochelle, France, Mai 2000.

8. Auto-stabilisation en Dépit de Communications non Fiables. Sylvie Delaët, Sébastien Tixeuil. *RenPar'9*, Lausanne, Suisse, June 1997

2.10.2   International conferences with proceedings without selection

1. An overview of existing tools for fault-injection and dependability benchmarking in grids. Sébastien Tixeuil, William Hoarau, and Luis Silva. *Second CoreGRID Workshop on Grid and Peer to Peer Systems Architecture*. January 2006.

2. Easy fault injection and stress testing with fail-fci. William Hoarau and Sébastien Tixeuil. *Second CoreGRID Workshop on Grid and Peer to Peer Systems Architecture*. January 2006.

3. Fault-injection and dependability benchmarking for grid computing middleware. Sébastien Tixeuil, Luis Moura Silva, William Hoarau, Gonçalo Jesus, Jo ao Bento, and Frederico Telles. *In Proceedings of CoreGRID Integration Workshop*, November 2005.

2.10.3   Unpublished papers currently being submitted

(long versions of conference papers are not mentioned here)

1. Fabiola Greve and Sébastien Tixeuil. Knowledge connectivity vs. synchrony requirements for fault-tolerant agreement in unknown networks. Research Report 6099, INRIA, 01 2007.

2. Conflict Managers for Self-stabilization without Fairness Assumption. Maria Gradinariu, and Sébastien Tixeuil. Technical report 1459, LRI, Univ. Paris-Sud, September 2006.

3. Christophe Genolini and Sébastien Tixeuil. Reactive k-stabilization and time adaptivity: possibility and impossibility results. Technical Report 1276, Laboratoire de Recherche en Informatique, University of Paris Sud XI, 2001.

4. Joffroy Beauquier, Ajoy Kumar Datta, and Sébastien Tixeuil. Self-stabilizing sorting on unidirectional rings. Technical Report 1174, Laboratoire de Recherche en Informatique, May 1998.