

CONTACT INFORMATION	Laboratoire des Signaux et Systèmes Supélec 3 rue Joliot-Curie F-91192 Gif-sur-Yvette France	Voice: +33 (0)1 69 85 17 32 Fax: +33 (0)1 69 85 17 65 E-mail: kieffer@lss.supelec.fr WWW: michel.kieffer.lss.supelec.fr
CITIZENSHIP	French	
SPOKEN LANGUAGES	French, English, and German.	
RESEARCH INTERESTS	Channel coding, Distributed processing, Distributed source coding, Information theory, Joint source-channel coding, Robust transmission of multimedia contents, Source coding, Bounded-error estimation, Interval analysis, Parameter estimation, Robotics, Robust estimation, State estimation	
EDUCATION	<p>Univ Paris-Sud, 91405 Orsay, France</p> <p>Habilitation à diriger des recherches (Habilitation), Physics, Dec. 2005</p> <ul style="list-style-type: none"> • Topic: Guaranteed estimation, Robust estimation ; Applications in robotics and communications <p>Thèse de doctorat (PhD degree), Control theory and Signal processing, Jan. 1999</p> <ul style="list-style-type: none"> • Topic: Bounded-error estimation using interval analysis ; application to the localization of a vehicle • Advisor: Dr Éric Walter <p>Diplôme d'études approfondies (Master's degree), Automatic Control and Signal processing, June 1996</p> <p>Ecole Normale Supérieure de Cachan, 94230 Cachan, France</p> <p>Agrégation in Applied Physics, June 1995</p>	
ACADEMIC EXPERIENCE	<p>Univ Paris-Sud and Institut Universitaire de France</p> <p><i>Junior member</i></p> <p>Telecom ParisTech, 75014 Paris, France</p> <p><i>Invited Professor</i></p> <p>Univ Paris-Sud, 91405 Orsay, France</p> <p><i>Maître de conférences (associate professor)</i></p> <p><i>Graduate Researcher</i></p> <p><i>Undergraduate Researcher</i></p> <p>Univ Marne-la-Vallée, 77454 Marne-la-Vallée, France</p> <p><i>Moniteur (teaching assistant)</i></p>	<p>Oct. 2011 to Sept. 2015</p> <p>Sept. 2009 to Aug. 2012</p> <p>Sept. 1999 to present</p> <p>Sept. 1996 to Aug. 1999</p> <p>April 1996 to Aug. 1996</p> <p>Sept. 1996 to Aug. 1999</p>
TEACHING (192 H / YEAR)	<p>Univ Paris-Sud, 91405 Orsay, France</p> <p>L3 PIST 355 <i>Numerical optimization techniques</i> - 25 h</p> <p>M1 IST 452 <i>Signal and Image</i> - 12 h</p> <p>M1 IST/INFO 455 <i>Information theory and source coding</i> - 50 h</p> <p>M2 IST G10 <i>Digital communication</i> - 25 h</p> <p>M2 IST G11 <i>Source coding</i> - 25 h</p> <p>M2 IST G12 <i>Multimedia</i> - 12 h</p> <p>M2 CCI <i>Numerical methods in computer science</i> - 12 h</p> <p>M2 SAR <i>Seminar in Joint-source-Channel coding</i> - 8 h</p>	<p>since 2005</p> <p>2005-2009</p> <p>since 2005</p> <p>2002-2009</p> <p>2005-2009</p> <p>2005-2009</p> <p>2005-2009</p> <p>2005-2009</p> <p>since 2005</p>

PUF Hanoi

M2 IST F05 *Digital communication and Channel coding - 12 h* since 2007
in english, via video conferencing.

Ecole Supérieure d'Electricité

Courses to industrials CG-04 (with E. Walter)
Parameter Identification, State Estimation, and Optimization since 2006

ADMINISTRAT. **Univ Paris-Sud**, 91405 Orsay, France

Head of the M2 PRO Networking and Telecommunications **June 2008 - June 2010**

AWARDS Institut Universitaire de France

- Junior member, 2011-2015

2008 IEEE International Conference on Acoustics, Speech, and Signal Processing

- Best student paper award to my PhD student F. Bassi, for the paper entitled *Source Coding with Intermittent and Degraded Side information at the Decoder*

French Ministry for Higher Education and Research

- Scientific excellence grant, 2003-2015

FORMER
STUDENTS

PhD students,

I. Braems (30%), **Sept. 1999 to Dec. 2002**

- Topic: Guaranteed set estimation techniques for the estimation of physical parameters
- with F. Berthier, L. Jaulin, and É. Walter
- currently full-time researcher at LEMHE, CNRS, Univ. Paris-Sud

R. Chiang (50%), **Oct. 2001 to Dec. 2004**

- Topic: Joint source-channel coding for the robust transmission of video over radio-mobile channels
- with P. Duhamel
- currently Assistant professor at the *department of Electrical Engineering* of the *National Chung Cheng University* Taiwan

C. M. Lee (50%), **Oct. 2001 to Dec. 2004**

- Topic: Joint source-channel coding tools for robust transmission of video sequences ; Application to H.263+ and H.264
- with P. Duhamel
- currently Assistant professor at the *department of Electrical Engineering* of the *National Chung Cheng University* Taiwan

S. Ben Jamaa (50%), **Oct. 2003 to Dec. 2006**

- Topic: Joint source-channel decoding of arithmetic codes ; Application to the robust decoding of H.264 encoded video
- with P. Duhamel
- currently with Thomson, 92000 Issy-lès-Moulineaux, France

R. Pépy (30%), **Oct. 2007 to Feb. 2009**

- Towards robust and safe path-planning algorithm
- with E. Walter
- currently with ONERA, 92322 Chatillon, France

C. Marin (40%), **April. 2004 to March 2009**

- Cross-layer estimation techniques for robust transmission of multimedia contents
- with P. Duhamel
- currently with Serma Technologies, 34000 Pessac, France

F. Bassi (40%), **Oct. 2006 to Dec. 2010**

- Robust distributed video coding
 - currently post-doctoral fellow with A. Hero, Univ. Michigan, United States.
- K. Bouchireb, (33% with P. Duhamel) **Oct. 2006 - June 2010**
- Topic : Enhanced video service provision through Radio Mobile networks
 - currently with Devoteam, 92300 Levallois-Perret, France
- U. Ali, (50% with P. Duhamel) **Oct. 2007 - Dec. 2010**
- Topic : WiBOX - Une passerelle pour une réception robuste de video diffusée via WIMAX et une rediffusion indoor via WIFI
- N. Changuel (50%, with B. Sayadi), **Oct. 2008 - Dec. 2011**
- Statistical multiplexing of scalable video streams
 - CIFRE PhD at Alcatel-Lucent Bell-Labs
 - currently with Alcatel-Lucent Bell-Labs, 91620 Nozay, France
- A. Diallo (50%), **From Oct. 2007**
- A priori characterisation of the performance of joint source-channel codes
 - with C. Weidmann
- L. Iwaza, (70%) **From Oct. 2009**
- Network coding for wireless networks
 - with K. Al Agha, LRI, Université Paris-Sud
- F. Mériaux, (50% with S. Lasaulce) **From Oct. 2010**
- Topic : Game theory and learning for distributed wireless networks
- H. Medina Ruiz, (50% with B. Pesquet-Popescu) **From Oct. 2010**
- Topic : Network coding: from theory to practical applications
- E. Dupraz, (50% with F. Bassi) **From Oct. 2010**
- Topic : Source coding and networks
- O. Mullier, (33% with E. Goubault and S. Putot) **From Jan. 2011**
- Topic : Under-approximations for the static analysis of numerical programs and the robust control of dynamic systems

Master's students,

- I. Braems, **April to July 1999**
- R. D. Njike, **Feb. to July 2005**
- G. Sabeva, **Sept. 2005 to April 2006**
- F. Bassi, **Sept. 2005 to March 2006**
- A. Diallo, **April to July 2007**
- E. Dupraz, **April to July 2010**
- F. Mériaux, **April to July 2010**

INDUSTRIAL OR
ACADEMIC
PROJECTS

European Networks of Excellence

- NEWCOM - Department 5, **2005 to 2007**
- Topic: Reliable delivery of multimedia contents
 - Participation to the definition of the scientific content of department
 - In charge of the coordination of the software platform
- NEWCOM++ - Department 7, **From Jan. 2008**
- Topic: Reliable delivery of multimedia contents
 - Participation to the definition of the scientific content of department
 - In charge of the coordination of TR7.1 JSCC/D and the OSI Layers

RNRT - French network for telecommunication research

- RNRT COSOCATI, **2001 to 2003**
- Topic: Joint source-channel coding for robust image transmission
- RNRT VIP, **2002 to 2004**
- Topic: Robust video transmission over IP networks
- RNRT DIVINE, **2006 to 2008**
- Topic: Video braodcasting over heterogenous networks to heterogenous receivers

ANR - French research agency

- ESSOR, **2006 to 2009**
- Topic: Distributed source coding of video
 - Coordination of the proposal, responsible for a workpackage.
- CPP, **2009 to 2012**
- Topic : Confidence, Proof, and Probabilities

DIM-LSC - Île de France region

- SWAN, **2010 to 2012**
- Topic: Source-aware network coding
 - Coordination of the project.

Direct industrial partnership

- CNES - SDMB - étude cross layer, **Sept. 2005 to May 2006**
- Topic: Study of cross-layer optimisation mechanisms for broadcasting multimedia content from a satellite to mobile receivers.
- CNES - SDMB - approfondissement cross layer, **Sept. 2006 to Feb. 2007**
- Topic: Study of cross-layer optimisation mechanisms for broadcasting multimedia content from a satellite to mobile receivers (second part).
- CIFRE PhD of C. Marin with Alcatel-Lucent Bell-Labs **April 2004 to March 2009**
- Cross-layer estimation techniques for robust transmission of multimedia contents
 - with P. Duhamel.
- CIFRE PhD of N. Changuel with Alcatel-Lucent Bell-Labs **Oct. 2008 - Dec. 2011**
- Statistical Multiplexing of scalable video streams

SERVICE

Associate editorship

- EURASIP Signal Processing, Associate Editor, **Since 2008**
- IEEE Transactions on Communications, Associate Editor, **Since 2012**

Invited sessions organizer

- [SYSID 2012](#), Brussels, **Aug. 2012**
- Topic: Interval analysis for parameter and state estimation
- [EUSIPCO 2010](#), Aalborg, **Aug. 2010**
- Topic: Distributed source coding from theory to applications
 - Co-organisation with M. Cagnazzo
- [EUSIPCO 2004](#), Vienna, **Sept. 2004**
- Topic: Robust transmission of multimedia contents based on overcomplete signal representation
 - Co-organisation with F. Labeau and P. Duhamel

Tutorials

- ICASSP 2012, Kyoto, Japan, **March 2012**
- Topic: Signal Processing Meets Network Layers: Joint Protocol-Channel Decoding
 - Half-day tutorial jointly with P. Duhamel
- NTMS 2011, Paris, France, **February 2011**
- Topic: Joint Protocol-Channel Decoding: Taking the Best out of Noisy Packets
 - Half-day tutorial jointly with P. Duhamel
- VCIP 2010, An Hui, China, **July 2010**
- Topic: Joint Source-Protocol-Channel Decoding
 - Half-day tutorial jointly with P. Duhamel
- ICASSP 2007, Honolulu, **April 2007**
- Topic: Joint Source and Channel Decoding: An Idea Whose Time Has Come
 - Half-day tutorial jointly with P. Duhamel

Organizing Committee Member

IEEE ICIP 2014

Technical Program Committee Member

IEEE ICTTA 2008 EUSIPCO 2009 IEEE MMSP 2010 IEEE MMM 2011 IEEE WCNC 2012 IEEE ICT 2012

Reviewer Committee Member

EUSIPCO 2007-2011

GRETSI 2009

Reviewer

Automatica, Computing, International Journal of Control, International Journal of Adaptive Control and Signal Processing, IEEE Transactions on Automatic Control, IEEE Transactions on Signal Processing, IEEE Transactions on Multimedia, IEEE Transactions on Image Processing, IEEE Transactions on Communications, IEEE Transactions on Neural Networks, IEEE Signal Processing Letters, Journal of Operation Research, Journal of Electroanalytical Chemistry, Reliable Computing Signal Processing Image Processing

CIFA 2002, 2004, IEEE ICC 2004, EUSIPCO 2004, 2006-2011, JESA 2004, 2006, 2008, SCAN 2004, 2006, 2008, IEEE CDC-ECC 2005 SYSID 2009 IFAC WC 2011

Expert

Agence Nationale de la Recherche, 2009-2010

Reviewer of 1 Habilitation committee

Reviewer of 8 PhD, among which 2 abroad

Head of 2 PhD committees

Member of 6 PhD committees

PUBLICATIONS

	Books	Journal	Patents	B. Chap.	Proc.	Conf.	Report	Total
1997	0	0	0	0	0	1	0	1
1998	0	0	0	1	1	0	0	2
1999	0	0	0	1	2	1	0	4
2000	0	2	0	0	0	0	0	2
2001	1	4	0	4	2	0	0	11
2002	0	1	0	0	1	2	0	4
2003	0	2	0	1	5 + 1*	1*	2	12
2004	0	1	0	2	6	0	1	10
2005	1	2	0	0	8	1	1	13
2006	0	2	0	1	10	4 + 2*	5	24
2007	0	4	0	0	2	0	9	15
2008	0	3	2	0	9	1	3	18
2009	1	4	(3)	2	6	0	3	16 (3)
2010	0	3	(1)	0	11 + 2*	0	2	18 (1)
2011	0	3	(2)	2	10	1*	0	16 (2)
2012	0	2 (1)	0	0	7 (3)	0	0	9 (4)
Total	3	33 (1)	2 (6)	14	80 + 3* (3)	10 + 4*	26	175 (10)

x* : invited ; (x) : submitted

Books

[2009]

[Liv.09.03] P. Duhamel and **M. Kieffer**. *Joint source-channel decoding: A cross-layer perspective with applications in video broadcasting*. Academic Press, 2009,

[2005]

[Liv.05.02] L. Jaulin, **M. Kieffer**, O. Didrit et E. Walter. *Applied Interval Analysis*. IKI, Moscou, 2005, (traduction en russe de [Liv.01.01] par S. Kumkov).

[2001]

[Liv.01.01] L. Jaulin, **M. Kieffer**, O. Didrit et E. Walter. *Applied Interval Analysis*. Springer-Verlag, London, 2001 (379 pages).

International journal papers

[2012]

[Art.12.32] A. Diallo, C. Weidmann, and **M. Kieffer**. New Free Distance Bounds and Design Techniques for Joint Source-Channel Variable-Length Codes. *IEEE Transactions on Communications*, (Minor revisions).

[Art.12.31] N. Changuel, B. Sayadi, and **M. Kieffer**. Predictive Encoder and Buffer Control for Statistical Multiplexing of Multimedia Contents. *IEEE Transactions on Broadcasting*, (to appear).

[Art.12.30] U. Ali, **M. Kieffer**, and P. Duhamel. Joint Protocol-Channel Decoding for Robust Frame Synchronization. *IEEE Transactions on Communications*, (to appear).

[2011]

[Art.11.29] F. Mourad, H. Snoussi, **M. Kieffer**, and C. Richard. Robust interval-based localization algorithms for mobile sensor networks. *International Journal of Distributed Sensor Networks*, special issue on *Smart Sensor Networks: Theory and Practice*, 2012, pp.1–7, 2012, doi:10.1155/2012/303895.

[Art.11.28] A. Diallo, C. Weidmann, and **M. Kieffer**. Efficient computation and optimization of the free distance of variable-length finite-state joint source-channel codes. *IEEE Transactions on Communications*, 59(4), pp. 1043–1052, 2011.

[Art.11.27] **M. Kieffer** and E. Walter. Guaranteed estimation of the parameters of nonlinear continuous-time models: contributions of interval analysis. *International Journal of Adaptive Control and Signal Processing*, 25(3), pp. 191-207, 2011.

[2010]

- [Art.10.26] C. Marin, K. Bouchireb, **M. Kieffer**, and P. Duhamel. Joint Exploitation of Residual Source Information and MAC Layer CRC Redundancy for Robust Video Decoding, *IEEE Transactions on Wireless Communications*, 9(7), 2165–2175, 2010.
- [Art.10.25] C. Marin, Y. Leprovost, **M. Kieffer**, and P. Duhamel. Robust MAC-Lite and soft header recovery for packetized multimedia transmission, *IEEE Transactions on Communications*, 58(3), 775–784, 2010.
- [Art.10.24] C. Weidmann and **M. Kieffer**. Evaluation of the distance spectrum of variable-length finite-state codes, *IEEE Transactions on Communications*, 58(3), 724–728, 2010.
- [2009]
- [Art.09.23] N. Changuel, B. Sayadi, et **M. Kieffer**. Statistical multiplexing of video programs. *IEEE Vehicular Technology Magazine*, 4(3), 62 – 68, 2009.
- [Art.09.22] E. Seignez, **M. Kieffer**, A. Lambert, E. Walter et T. Maurin. Real-Time Bounded-Error State Estimation for Vehicle Tracking. *International Journal of Robotic Research*, 28(1), 34–48, 2009.
- [Art.09.21] S. Ben-Jamaa, **M. Kieffer**, et P. Duhamel. Efficient MAP estimation of CABAC encoded data with objective adjustment of the complexity/efficiency tradeoff. *IEEE Transactions on Communications*, 57(7), 2014–2023, 2009.
- [Art.09.20] R. Pépy, **M. Kieffer**, et E. Walter. Reliable Robust Path Planning. *International Journal of Applied Mathematics and Computer Sciences*, 19(3), 413–424, 2009.
- [2008]
- [Art.08.19] E. Walter et **M. Kieffer**. Sur quelques idées fausses ayant des conséquences en identification. *Journal Européen des Systèmes Automatisés*, 42(2), 181–210, 2008.
- [Art.08.18] S. Ben-Jamaa, C. Weidmann, et **M. Kieffer**. Analytical Tools for Optimizing the Error Correction Performance of Arithmetic Codes. *IEEE Transactions on Communications*, 56(9), 1458–1468, 2008.
- [Art.08.17] T. Karp, **M. Kieffer**, et P. Duhamel. Parity-check matrix calculation for paraunitary oversampled DFT filter banks. *IEEE Trans. on Signal Processing*, 56(10), 5277–5283, 2008.
- [2007]
- [Art.07.16] E. Walter et **M. Kieffer**. Guaranteed Nonlinear Parameter Estimation in Knowledge-Based Models. *Journal of Computational and Applied Mathematics*, 199(2), 277–285, 2007.
- [Art.07.15] I. Braems, N. Ramdani, **M. Kieffer**, L. Jaulin, E. Walter, Y. Candau. Guaranteed Characterization of Thermal Conductivity and Diffusivity in Presence of Model Uncertainty. *Inverse Problems in Science and Engineering*, 15(8), 895–910, 2007.
- [Art.07.14] A. Bouabdallah, **M. Kieffer**, J. Lacan, G. Sabeva, G. Scot, C. Bazile, et P. Duhamel. Evaluation of Cross-Layer Reliability Mechanisms for Satellite Digital Multimedia Broadcast. *IEEE trans. Broadcasting*, 53(1), 391–404, 2007.
- [Art.07.13] A. Gabay, **M. Kieffer**, et P. Duhamel. Joint Source-Channel Coding using Real BCH Codes for Robust Image Transmission. *IEEE trans. Image Processing*, 16(6), 1568–1583, 2007.
- [2006]
- [Art.06.12] G. R. Mohammad-Khani, C. M. Lee, **M. Kieffer** et P. Duhamel. Simplification of VLC tables allowing soft decoding of VLC encoded data. *IEEE Transactions on Communications*, 54(10), 1835 - 1844, 2006.
- [2005]
- [Art.05.11] **M. Kieffer** et E. Walter. Interval analysis for guaranteed nonlinear parameter and state estimation. *Mathematical and Computer Modelling of Dynamic Systems*, 11(2), 171–181, 2005.
- [Art.05.10] F. Labeau, J.C. Chiang, **M. Kieffer**, P. Duhamel, L. Vandendorpe et B. Mack. Over-sampled filter banks as error correcting codes: theory and impulse correction. *IEEE Trans. on Signal Processing*, 53(12), 4619 – 4630, 2005.
- [2004]

[Art.04.09] **M. Kieffer** et E. Walter. Guaranteed nonlinear state estimator for cooperative systems. *Numerical Algorithms*, 37, 187–198, 2004.

[2003]

[Art.03.08] I. Braems, N. Ramdani, **M. Kieffer** et E. Walter. Caractérisation garantie d’un dispositif de mesure de grandeurs thermiques. *Journal Européen des Systèmes Automatisés (JESA)*, 37(9), 1129–1144, 2003.

[Art.03.07] L. Jaulin, **M. Kieffer**, E. Walter et D. Meizel. Guaranteed robust nonlinear estimation, with application to robot localization. *IEEE Transactions on Systems, Man and Cybernetics; Part C – Applications and Reviews*, 32(4), 374–382, 2003.

[2002]

[Art.02.06] **M. Kieffer**, L. Jaulin et E. Walter. Guaranteed Recursive Nonlinear State Bounding Using Interval Analysis. *International Journal of Adaptive Control and Signal Processing*, 6(3), 193–218, 2002.

[2001]

[Art.01.05] I. Braems, F. Berthier, L. Jaulin, **M. Kieffer** et E. Walter. Guaranteed estimation of electrochemical parameters by set inversion using interval analysis. *Journal of Electroanalytical Chemistry*, 495(1), 1–9, 2001.

[Art.01.04] L. Jaulin, **M. Kieffer**, I. Braems et E. Walter. Guaranteed non-linear estimation using constraint propagation on sets. *Int. J. Control*, 74(18), 1772–1782, 2001.

[Art.01.03] E. Walter, L. Jaulin et **M. Kieffer**. Interval Analysis for Guaranteed and Robust Nonlinear Estimation in Robotics. *Nonlinear Analysis*, 47, 191–202, 2001.

[2000]

[Art.00.02] S. Brahim-Belhouari, **M. Kieffer**, G. Fleury, L. Jaulin et E. Walter. Model Selection via Worst-Case Criterion for Nonlinear Bounded-Error Estimation. *IEEE Trans. on Instrumentation and Measurement*, 49(3), 653–658, 2000.

[Art.00.01] **M. Kieffer**, L. Jaulin, E. Walter et D. Meizel. Robust Autonomous Robot Localization Using Interval Analysis. *Reliable Computing*, 6(3), 337–362, 2000.

National journal papers

[2006]

[Art.06.02] G.R. Mohammad-Khani, C.M. Lee, **M. Kieffer**, et P. Duhamel. Treillis à complexité réduite pour le décodage de codes à longueur variable. *Traitement du signal*, 23(5-6), 405–413, 2006.

[2001]

[Art.01.01] **M. Kieffer**, L. Jaulin, E. Walter et D. Meizel. Localisation et suivi robustes d’un robot mobile grâce à l’analyse par intervalles. *Traitement du Signal*, 17(3), 207–219, 2001.

Patents

[2011]

[B.11.08] N. Changuel, B. Sayadi, and **M. Kieffer**. Statistical multiplexing of distributed video streams. Application 809506, Alcatel-Lucent, 2011.

[B.11.07] N. Changuel, B. Sayadi, and **M. Kieffer**. A Video Packet Scheduling Method for Multimedia Streaming. Application 11290068.3 filed 31.01.11, Alcatel-Lucent, 2011.

[2010]

[B.10.06] N. Changuel, B. Sayadi, and **M. Kieffer**. Scheduling Method for Data Streaming in a Telecommunication Network Infrastructure. Application 10306046.3, filed 01.10.10, Alcatel-Lucent, 2010.

[2009]

- [B.09.05] N. Changuel, B. Sayadi, and **M. Kieffer**. Joint Encoder and Buffer Regulation for Statistical Multiplexing of Multimedia Contents. Application 09290584.3, filed 24.07.09, Alcatel-Lucent, 2009.
- [B.09.04] N. Changuel, B. Sayadi, and **M. Kieffer**. Method for Allocating Bit Rates to Video Programs Transmitted Within a Fixed Rate Channel. Application 09305287.6, filed 06.04.09, Alcatel-Lucent, 2009.
- [B.09.03] C. Marin, **M. Kieffer**, P. Duhamel, V. Kumar, and B. Sayadi. Method and apparatus for decoding block codes. Patent EP2214322.A1, Application 09290070.3, filed 30.01.09, Alcatel-Lucent, 2009.

[2008]

- [B.08.02] C. Marin, **M. Kieffer**, and P. Duhamel. Recovery of transmission errors. Patent WO/2009/135882, EP2009/055489, filed 06.05.08, published 12.11.09, Alcatel-Lucent, 2008.
- [B.08.01] C. Marin, **M. Kieffer**, and P. Duhamel. Recovery of transmission errors. Patent WO/2009/135873, EP2009/055476, filed 06.05.08, published 12.11.09, Alcatel-Lucent, 2008.

Communications in International Conferences

[2012]

[2012]

- [CaA.12.79] A. Combernoux, C. Delestre, N. Changuel, B. Sayadi, et **M. Kieffer**. Cross-layer optimization of a multimedia streaming system via dynamic programming, *Proc. IEEE Int. Conf. on Image Processing*, submitted.
- [CaA.12.78] N. Changuel, B. Sayadi, et **M. Kieffer**. PSNR-Fair Statistical Multiplexing with distributed control of Video servers, *Proc. IEEE Int. Conf. on Image Processing*, submitted.
- [CaA.12.77] E. Dupraz, A. Roumy, and **M. Kieffer**. Source Coding with Side Information at the Decoder: Models with Uncertainty, Performance Bounds, and Practical Coding Schemes, *Proceedings ISIT 2012*, submitted.
- [CaA.12.76] F. Mourad, H. Snoussi, **M. Kieffer**, and C. Richard. Robust bounded-error tracking in wireless sensor networks, *SysId 2012*, Brussels, Belgium, 2012, to appear.
- [CaA.12.75] M. Abid, **M. Kieffer**, and B. Pesquet-Popescu. Maximum a Posteriori Consistent Estimation Using Interval Analysis, *SysId 2012*, Brussels, Belgium, 2012, to appear.
- [CaA.11.74] H. Medina-Ruiz, L. Iwaza, **M. Kieffer**, B. Pesquet-Popescu, and K. Al Agha. Evaluation of Multicasting Schemes based on Joint Multiple Description and Network Coding, *Proc. IEEE WCRC*, Paris, France, 2012, to appear.
- [CaA.12.73] Q. Wang, M. Abid, **M. Kieffer**, and B. Pesquet-Popescu. MAP estimation of the input of an oversampled filter bank from noisy subbands by belief propagation, *Proceedings ICASSP 2012*, Kyoto, Japan, 2012, to appear.
- [CaA.12.72] E. Dupraz, F. Bassi, T. Rodet, and **M. Kieffer**. Distributed Coding of Sources With Bursty Correlation, *Proceedings ICASSP 2012*, Kyoto, Japan, 2012, to appear.
- [CaA.12.71] H. Hijazi, A. Diallo, **M. Kieffer**, L. Liberti, and C. Weidmann. A MILP approach for designing robust variable-length codes based on exact free distance computation, *Proc. Data Compression Conference*, Snowbird, UH, 2012, to appear.
- [CaA.12.70] F. Mazenc, **M. Kieffer**, and E. Walter. Interval observers for continuous-time linear systems with discrete-time outputs, *Proc. IEEE American Control Conference*, to appear.

[2011]

- [CaA.11.69] F. Mériaux, M. Le Treust, S. Lasaulce, and **M. Kieffer**. A Stochastic Game Formulation of Energy-Efficient Power Control: Equilibrium Utilities and Practical Strategies, *Proc. 17th International Conference on Digital Signal Processing (DSP-2011)*, Corfu, Greece, 2011.
- [CaA.11.68] L. Iwaza, **M. Kieffer**, L. Liberti, and K. Al Agha. Joint Decoding of Multiple-Description Network-Coded Data, *Proc. IEEE International Symposium on Network Coding (NETCOD-2011)*, Beijing, China, 2011.

- [CaA.11.67] M. Abid, **M. Kieffer**, and B. Pesquet-Popescu. Consistent Reconstruction of the Input of an Oversampled Filter Bank From Noisy Subbands, *Proc. European Signal Processing Conference*, Barcelona, Spain, 2011.
- [CaA.11.66] C. Dikici, A. Mokraoui, **M. Kieffer**, and P. Duhamel. Joint Source-Protocol-Channel Decoding: Improving 802.11N Receivers, *Proc. European Signal Processing Conference*, Barcelona, Spain, 2011.
- [CaA.11.65] N. Changuel, N. Mastronarde, M. van der Schaar, B. Sayadi, et **M. Kieffer**. Adaptive scalable layer filtering process for video scheduling over wireless networks based on MAC buffer management, *Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing*, pp. 2352-2355, 2011.
- [CaA.11.64] U. Ali, **M. Kieffer**, and P. Duhamel. Sliding-Trellis based Frame Synchronization, *Proc. IEEE International Conference on Communication*, 2011.
- [CaA.11.63] F. Mériaux, S. Lasaulce, et **M. Kieffer**. More about base station location games, *Proc. 5th International Conference on Performance Evaluation Methodologies and Tools*, 2011.
- [2010]
- [CaA.10.62] A. Diallo, C. Weidman, et **M. Kieffer**. Optimizing the Free Distance of Error-Correcting Variable-Length Codes, *Proc. IEEE International Workshop on Multimedia Signal Processing*, St Malo, France, 2010.
- [CaA.10.61] M. Abid, **M. Kieffer**, et B. Pesquet-Popescu. Joint source-channel coding/decoding of 3D-ESCOT bitstreams, *Proc. IEEE International Workshop on Multimedia Signal Processing*, St Malo, France, 2010.
- [CaA.10.60] N. Changuel, B. Sayadi, et **M. Kieffer**. Joint encoder and buffer control for statistical multiplexing of multimedia contents, *Proc. IEEE GLOBECOM*, 2010.
- [CaA.10.59] N. Changuel, N. Mastronarde, M. van der Schaar, B. Sayadi, et **M. Kieffer**. End-to-end Stochastic Scheduling of Scalable Video Over Time Varying Channels, *Proc. ACM Multimedia*, Florence, Italy, 2010.
- [CaA.10.58] F. Bassi, **M. Kieffer**, et C. Weidmann. Wyner-Ziv coding with uncertain side information quality, *Proceedings EUSIPCO 10*, Aalborg, Denmark, 2010.
- [CaA.10.57] U. Ali, **M. Kieffer**, and P. Duhamel. Frame Synchronization based on Robust Header Recovery and Bayesian Testing, *Proc. IEEE PIRMC*, Istanbul, Turkey, 2010.
- [CaA.10.56] M. Abid, **M. Kieffer**, M. Cagnazzo, and B. Pesquet-Popescu. Robust decoding of a 3D-ESCOT bitstream transmitted over a noisy channel, *Proc. IEEE Int. Conf. on Image Processing*, Dallas, TX, 2010.
- [CaA.10.55] **M. Kieffer** and P. Duhamel. Joint Protocol-Channel Decoding - An Overview *Proc. FUNEMS*, 2010, invited.
- [CaA.10.54] M. Di Renzo, L. Iwaza, **M. Kieffer**, P. Duhamel, and K. Al Agha. Robust Wireless Network Coding - An Overview *Proc. MOBILIGHT*, 2010.
- [CaA.10.53] J.-B. Léger and **M. Kieffer**. Guaranteed robust distributed estimation in a network of sensors, *Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing*, pages 914 - 917, Dallas, TX, 2010.
- [CaA.10.52] F. Mériaux and **M. Kieffer**. Robust IP and UDP-lite header recovery for packetized multimedia transmission, *Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing*, pages 2358 - 2361, Dallas, TX, 2010.
- [CaA.10.51] N. Changuel, B. Sayadi, and **M. Kieffer**. H.264/AVC Inter-Frame Rate-Distorsion dependency analysis based on independent regime switching AR models, *Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing*, Dallas, TX, 2010.
- [CaA.10.50] R. Hu, X. Huang, **M. Kieffer**, O. Derrien, and P. Duhamel. Robust critical data recovery for MPEG-4 AAC encoded bitstreams, *IEEE Int. Conf. on Acoustics, Speech and Signal Processing*, pages 397 - 400, Dallas, TX, 2010.

[2009]

- [CaA.09.49] U. Ali, **M. Kieffer**, and P. Duhamel. Joint Protocol-Channel Decoding for Robust Aggregated Packet Recovery at WiMAX MAC Layer, *Proc. IEEE SPAWC*, pages 672–676, La Pérouse, Italie, 2009.
- [CaA.09.48] M.-A. Agostini, M. Antonini, and **M. Kieffer**. MAP Estimation of Multiple Description Encoded Video Transmitted over noisy Channel, *Proc. IEEE ICIP*, Le Caire, Egypte, 2009.
- [CaA.09.47] A. Diallo, C. Weidmann, and **M. Kieffer**. Optimizing the search of finite-state joint source-channel codes based on arithmetic coding, *Proc. Eusipco*, 2009.
- [CaA.09.46] F. Bassi, **M. Kieffer**, and C. Dikici. Multiterminal source coding of Bernoulli-Gaussian correlated sources, *Proceedings ICASSP 09*, pages 2501–2504, Taipei, Taiwan, 2009.
- [CaA.09.45] N. Changuel, B. Sayadi, and **M. Kieffer**. Predictive control for efficient statistical multiplexing of digital video programs, *Proceedings Packet Video*, pages 1–9, Seattle, WA, 2009.
- [CaA.09.44] **M. Kieffer**. Distributed bounded-error state estimation, *Proc. IFAC Symposium on System Identification*, pages 360-365, St Malo, France, 2009.
- [2008]
- [CaA.08.43] F. Bassi, **M. Kieffer**, et C. Weidmann. Source coding with intermittent and degraded side information at the decoder, *Proceedings ICASSP 08*, 2008, Best student paper award.
- [CaA.08.42] T. Karp, **M. Kieffer**, et P. Duhamel. Oversampled DFT filter banks for error correction coding, *Proceedings EUSIPCO 08*, 2008.
- [CaA.08.41] O. Derrien, **M. Kieffer**, et P. Duhamel. Joint source-channel decoding of scale factors in MPEG-AAC encoded bitstreams, *Proceedings EUSIPCO 08*, 2008.
- [CaA.08.40] C. Weidmann, F. Bassi, et **M. Kieffer**. Practical source coding with impulse-noise degraded side information at the decoder, *Proceedings EUSIPCO 08*, 2008.
- [CaA.08.39] R. Pépy, **M. Kieffer**, et E. Walter. Guaranteed robust path planner, *Proc. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2008.
- [CaA.08.38] C. Marin, Y. Leprovost, **M. Kieffer**, et P. Duhamel. Robust MAC-lite and header recovery based improved permeable protocol layer scheme, *Proc. International Symposium on Spread Spectrum Techniques and Applications (ISSSTA)*, 2008.
- [CaA.08.37] C. Marin, Y. Leprovost, **M. Kieffer**, et P. Duhamel. Robust header recovery based enhanced permeable protocol layer mechanism, *Proc. IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, pp. 91–95, 2008.
- [CaA.08.36] A. Dziri, A. Diallo, **M. Kieffer**, et P. Duhamel. P-Picture based H.264 AVC to H.264 SVC temporal transcoding, *Proceedings IEEE International Wireless Communications and Mobile Computing Conference 2008 (IWCMC)*, 2008.
- [CaA.08.35] K. Bouchireb, C. Marin, P. Duhamel, et **M. Kieffer**. Improved retransmission scheme for video communication systems, *Proceedings IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, 2008.
- [2007]
- [CaA.07.34] C. Marin, P. Duhamel, K. Bouchireb, et **M. Kieffer**. Robust Video Decoding through simultaneous Usage of Residual Source Information and MAC Layer CRC Redundancy, In *Proceedings Globecom 07*, 2007.
- [CaA.07.33] S. Pikorski, L. Lacassagne, **M. Kieffer** et D. Etiemble. *DEfficient 16-bit floating point interval processor for embedded systems nd applications*. CR-Rom of Proceedings 12th GAMM-IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 06), Duisburg, 2007.
- [2006]
- [CaA.06.32] S. Ben-Jamaa, **M. Kieffer**, et P. Duhamel. Improving sequential decoding of cabac encoded data via objective adjustment of the complexity–efficiency trade–off. In *Proceedings IS&T/SPIE, San Jose, California USA.*, 2006.
- [CaA.06.31] S. Ben-Jamaa, **M. Kieffer**, et P. Duhamel. Exact map decoding of cabac encoded data. In *Proceedings of ICASSP*, pages 569–572, 2006.

- [CaA.06.30] J. C. Chiang, C. M. Lee, **M. Kieffer**, et P. Duhamel. Robust video transmission over mixed IP - wireless channels using motion-compensated oversampled filterbanks. In *Proceedings of ICASSP*, pages 541–544, 2006.
- [CaA.06.29] **M. Kieffer** et E. Walter. Centralized and distributed source localization by a network of sensors using guaranteed set estimation. In *Proceedings of ICASSP*, pages 977–980, 2006.
- [CaA.06.28] **M. Kieffer** et E. Walter. Guaranteed nonlinear state estimation for continuous-time dynamical models from discrete-time measurements. In *Proceedings of ROCOND*, 2006. A paraître.
- [CaA.06.27] **M. Kieffer**, I. Simeonov, et E. Walter. Guaranteed nonlinear parameter estimation for continuous-time dynamical models. In *Proceedings of the 14th IFAC Symposium on System Identification (SYSID 2006)*, pages 843–848, 2006.
- [CaA.06.26] S. Ben-Jamaa, **M. Kieffer**, et P. Duhamel. Controlled complexity MAP decoding of CABAC encoded data. In *Proceedings of ICME*, pages 1441–1444, 2006.
- [CaA.06.25] G. Sabeva, S. Ben-Jamaa, **M. Kieffer**, et P. Duhamel. Robust decoding of H.264 encoded video transmitted over wireless channels. In *Proceedings of MMSP*, pages 9–13, 2006. v
- [CaA.06.24] S. Ben-Jamaa, C. Weidmann, **M. Kieffer**. Asymptotic Error-Correcting Performance of Joint Source-Channel Schemes based on Arithmetic Coding. In *Proceedings of MMSP*, pages 262–266, 2006.
- [CaA.06.23] M. H. Larsen, C. Weidmann, et **M. Kieffer**. Iterative Decoding of Entropy-Constrained Multiple Description Trellis-Coded Quantization. In *Proceedings of GLOBECOM*, 2006. A paraître.
- [2005]
- [CaA.05.22] I Braems, N. Ramdani, A. Boudenne, **M. Kieffer**, L. Jaulin, L. Ibos, E. Walter et Y. Candau. New Set-Membership Techniques for Parameter Estimation in Presence of Model Uncertainty. *Proceedings of the 5th International Conference on Inverse Problems in Engineering: Theory and Practice*, Cambridge, UK, B09, pages 1–9, 2005.
- [CaA.05.21] J. C. Chiang, **M. Kieffer** et P. Duhamel. Motion-Compensated Oversampled Filterbanks for Robust Video Coding. *Proceedings of ICASSP*, pages 917–920, 2005.
- [CaA.05.20] C.M. Lee, **M. Kieffer** et P. Duhamel. Soft decoding of VLC encoded data for robust transmission of packetized video. *Proceedings of ICASSP*, pages 737–740, 2005.
- [CaA.05.19] E. Seignez, **M. Kieffer**, A. Lambert, E. Walter et T. Maurin. Experimental Vehicle Localization by Bounded-Error State Estimation Using Interval Analysis. *Proceedings of IROS*, pages 1084–1089, 2005.
- [CaA.05.18] **M. Kieffer**, E. Seignez, A. Lambert, Walter E. et T. Maurin. Guaranteed Robust Nonlinear State Estimator with Application to Global Vehicle Tracking. *Proceedings of CDC - ECC*, pages 6424–6429, 2005.
- [CaA.05.17] I. Simeonov, **M. Kieffer**, et E. Walter. Interval modeling and simulation of the anaerobic digestion of organic waste. *Proc. Int. Conf. Automatics and Informatics'05*, Sofia, pages 201–204, 2005.
- [2004]
- [CaA.04.16] J. Bondia, **M. Kieffer**, E. Walter, J. Monreal et J. Pico. Guaranteed tuning of PID controllers for parametric uncertain systems. *Proceedings of the 43rd IEEE CDC*, IEEE, Atlantis, Bahamas, 2004.
- [CaA.04.15] J.C. Chiang, **M. Kieffer** et P. Duhamel. Robust image transmission using oversampled filterbanks. *Proceedings of EUSIPCO*, pages 1325–1328, 2004.
- [CaA.04.14] **M. Kieffer**, E. Seiguez, A. Lambert, T. Maurin et E. Walter. Vehicle tracking based on robust bounded-error state estimation using interval analysis. *Proceedings of the First International Conference on Information and Communication Technologies: from Theory to Applications*, pages 65–66, 2004.
- [CaA.04.13] C.M. Lee, **M. Kieffer** et P. Duhamel. Robust Reconstruction of Motion Vectors Using Frame Expansion. *Proceedings of ICASSP 2004*, volume 4, pages 617–620, 2004.

[CaA.04.12] A. Ouled Zaid, **M. Kieffer**, C. M. Lee et P. Duhamel. Robust Video Transmission Using H.264 and Real-Valued BCH Frames. *IEEE International Conference on Image Processing (ICIP)*, Singapore, october 2004.

[2003]

[CaA.03.11] I. Braems, L. Jaulin, **M. Kieffer**, N. Ramdani et E. Walter. Reliable parameter estimation in presence of uncertain variables that are not estimated. *Proceedings of the 13th IFAC Symposium on System Identification, SYSID 2003*, pages 1856–1861, 2003.

[CaA.03.10] I. Braems, **M. Kieffer** et E. Walter. Prior characterization of the performance of software sensors. *Proceedings of the 13th IFAC Symposium on System Identification, SYSID 2003*, pages 313–318, 2003.

[CaA.03.09] J. C. Chiang, **M. Kieffer** et P. Duhamel. Oversampled filterbanks seen as channel codes : impulse noise correction. *Proceedings of ICASSP*, volume 4, pages 249–252, 2003.

[CaA.03.08] C. M. Lee, **M. Kieffer** et P. Duhamel. Robust Motion Vectors and Texture Transmission for the H263 Video Encoder Family. *Proceedings of the 23rd Picture Coding Symposium*, Saint-Malo, 2003.

[CaA.03.07] E. Walter et **M. Kieffer**. Interval Analysis for guaranteed nonlinear estimation (invited semi-plenary). *Proceedings of the 13th IFAC Symposium on System Identification, SYSID 2003*, pages 259–270, 2003.

[2002]

[CaA.02.06] I. Braems, L. Jaulin, **M. Kieffer** et E. Walter. Identifiabilités, discernabilités et analyse par intervalles. *Conférence Internationale Francophone d' Automatique*, pages 823–828, Nantes, 2002.

[2001]

[CaA.01.05] I. Braems, L. Jaulin, **M. Kieffer** et E. Walter. Guaranteed alternatives techniques to structural identifiability testing. *40th IEEE Conference on Decision and Control*, pages 3122–3128, 2001.

[CaA.01.04] **M. Kieffer**, E. Walter, I Braems et L. Jaulin. Interval analysis for nonlinear parameter and state estimation: contributions and limitations. *Prep. 5th IFAC Symposium Nonlinear Control Systems (NOLCOS'01)*, pages CD-ROM, Saint-Petersburg, 2001.

[1999]

[CaA.99.03] S. Brahim-Belhouari, **M. Kieffer**, G. Fleury, L. Jaulin et E. Walter. Model Selection via Worst-Case Criterion for Nonlinear Bounded-Error Estimation. *16th IEEE Instrumentation and Measurement Tech. Conf.*, Venice, Italy, 1999.

[CaA.99.02] **M. Kieffer**, L. Jaulin, E. Walter et D. Meizel. Guaranteed Mobile Robot Tracking Using Interval Analysis. *Proceedings of the MISC'99 Workshop on Applications of Interval Analysis to Systems and Control*, pages 347–359, Girona, Spain, 1999.

[1998]

[CaA.98.01] **M. Kieffer**, L. Jaulin et E. Walter. Guaranteed Recursive Nonlinear State Estimation Using Interval Analysis. *Proceedings of the 37th IEEE Conference on Decision and Control*, pages 3966–3971, Tampa, FL, 1998.

Communications in National Conferences

[2011]

[CaA.11.07] F. Mériaux, M. Le Treust, S. Lasaulce, and **M. Kieffer**. Jeux stochastiques et contrôle de puissance distribué. *Actes de GRETSI*, Bordeaux, 2011.

[CaA.11.06] N. Changuel, B. Sayadi, and **M. Kieffer**. Statistical multiplexing of distributed video streams. *Actes de GRETSI*, Bordeaux, 2011.

[CaA.11.05] M. Abid, **M. Kieffer**, and B. Pesquet-Popescu. Reconstruction cohérente de l'entrée d'un banc de filtres suréchantillonnés à partir de sa sortie bruitée. *Actes de GRETSI*, Bordeaux, 2011.

[2005]

[CaA.05.04] G. R. Mohammad-Khani, C. M. Lee, **M. Kieffer** et P. Duhamel. Treillis à complexité réduite pour le décodage de codes à longueur variable. *Actes de GRETSI*, 2005.

[CaA.05.03] S. Ben-Jamaa, **M. Kieffer** et P. Duhamel. Décodage arithmétique séquentiel avec réglage objectif du compromis complexité – efficacité. Actes de CORESA, pages 159–164, 2005.

[2004]

[CaA.04.02] A. Ouled Zaid, **M. Kieffer**, C.M. Lee et P. Duhamel. Reconstruction Robuste de Vecteurs Mouvements Appliquée au Codeur H.264. Actes de CORESA, L’ENIC Télécom Lille 1, 24–25 mai 2004.

[2003]

[CaA.03.01] C. Durieu et **M. Kieffer**. Colloque sur l’Enseignement des Technologies et des Sciences de l’Information et des Systèmes (CETIS-EEA 2003). Toulouse, pp. 143-146, 2003.

Book chapters

[2012]

[Chp.12.16] L. Iwaza, M. Di Renzo, et **M. Kieffer**. Reliable Network Coding. *Dans* K. Al Agha, ed., *Network Coding: from Theory to Practice*, to appear).

[Chp.12.15] L. Iwaza, M. Di Renzo, et **M. Kieffer**. Codage Réseau Robuste. *Dans* K. Al Agha, éd., *Codage Réseau de la Théorie à la Pratique*, to appear).

[2011]

[Chp.11.14] M. Kletting, **M. Kieffer**, et E. Walter. Two Approaches for Guaranteed State Estimation of Nonlinear Continuous-Time Models. *In* A. Rauh and E. Auer, eds., *Modeling, Design, and Simulation of Systems with Uncertainties*, pp. 199-220, Springer, London, 2011).

[Chp.11.13] **M. Kieffer**, M. C. Markót, H. Schichl, et E. Walter. Verified global optimization for estimating the parameters of nonlinear models. *In* A. Rauh and E. Auer, eds., *Modeling, Design, and Simulation of Systems with Uncertainties*, pp. 129-151, Springer, London, 2011).

[2009]

[Chp.09.12] R. Pépy, **M. Kieffer**, et E. Walter. Reliably Safe Path Planning Using Interval Analysis. *In* E. Wilson, J. Norbury, and A. D. Fitt, eds., *Progress in Industrial Mathematics at ECMI 2008. Mathematics in Industry, The European Consortium for Mathematics in Industry subseries*, Springer, London, 2009.

[Chp.09.11] **M. Kieffer**. Distributed bounded-error parameter and state estimation in networks of sensors. *In* A. Cuyt, W. Krämer, W. Luther, and P. Markstein, eds., *Numerical validation in current hardware architectures - From embedded system to high-end computational grids*, Springer, Heidelberg, 2009.

[2006]

[Chp.06.10] E. Walter et **M. Kieffer**. Guaranteed optimisation of the parameters of continuous-time knowledge-based models. *In* C. Commault et R. Alt eds., *Positive systems – Proceedings of the Second Multidisciplinary International Symposium on Positive Systems: Theory and Applications (POSTA 2006)*, , pages 137–144. Springer, Heidelberg, 2006.

[2004]

[Chp.04.09] **M. Kieffer** et E. Walter. Nonlinear Parameter and State Estimation for Cooperative Systems in a Bounded-Error Context. *In* R. Alt, A. Frommer, R. B. Kearfott et W. Luther eds., *Numerical Software with Result Verification International Dagstuhl Seminar, Dagstuhl Castle, Germany, January 19–24, 2003. Revised Papers*, pages 107–123. Springer, 2004.

[Chp.04.08] E. Walter, I. Braems, L. Jaulin et **M. Kieffer**. Guaranteed Numerical Computation as an alternative to Computer Algebra for Testing Models for Identifiability. *In* R. Alt, A. Frommer, R. B. Kearfott et W. Luther eds., *Numerical Software with Result Verification International Dagstuhl Seminar, Dagstuhl Castle, Germany, January 19–24, 2003. Revised Papers*, pages 124–131. Springer, 2004.

[2003]

- [Chp.03.07] **M. Kieffer** et E. Walter. Guaranteed parameter estimation for cooperative systems. *Proceedings of First Multidisciplinary International Symposium on Positive Systems: Theory and Applications (POSTA 2003)*, pages 103–110, 2003.

[2001]

- [Chp.01.06] I. Braems, F. Berthier, L. Jaulin, **M. Kieffer** et E. Walter. Estimation et traitement garanti des incertitudes de mesure : applications en électrochimie. In F. Lepoutre, D. Placko et Y. Surrel eds., *Instrumentation pour les mesures physiques, C2I*, volume 1, pages 55–62. Hermès Science Publications, Paris, 2001.
- [Chp.01.05] I. Braems, **M. Kieffer**, E. Walter et L. Jaulin. Set estimation, computation of volumes and Data safety. In W. Krämer et J. W. von Gudenberg eds., *Scientific Computing, Validated Numerics, Interval Methods*, pages 267–278, Kluwer Academic/Plenum, New-York, 2001.
- [Chp.01.04] L. Jaulin, I. Braems, **M. Kieffer** et E. Walter. Nonlinear State Estimation Using Forward-Backward Propagation of Intervals. In W. Kraemer et J. W. von Gudenberg eds., *Scientific Computing, Validated Numerics, Interval Methods*, pages 191–201, Boston, 2001.
- [Chp.01.03] **M. Kieffer**, L. Jaulin, I. Braems et E. Walter. Guaranteed Set Computation with Subpavings. In W. Kraemer et J. W. von Gudenberg eds., *Scientific Computing, Validated Numerics, Interval Methods*, pages 167–178, Boston, 2001.

[1999]

- [Chp.99.02] **M. Kieffer**, L. Jaulin, E. Walter et D. Meizel. Nonlinear Identification Based on Unreliable Priors and Data, with Application to Robot Localization. In A. Garulli, A. Tesi et A. Vicino eds., *Robustness in Identification and Control*, volume LNCIS 245, pages 190–203, Springer-Verlag, London, UK, 1999.

[1998]

- [Chp.98.01] **M. Kieffer** et E. Walter. Interval Analysis for Guaranteed Nonlinear Parameter Estimation. In A. C. Atkinson, L. Pronzato et H. P. Wynn eds., *MODA 5-Advances in Model-Oriented Data Analysis and Experiment Design*, pages 115–125. Physica-Verlag, Heidelberg, 1998.

Communications

[2012]

- [CsA.11.17] C. Liu, F. Bassi, L. Iwaza et **M. Kieffer** Joint source-network coding for efficient data collection in wireless sensor networks, Réunion DIM-LSC SWAN, janvier 2012, <http://www.lss.supelec.fr/~p>
- [CsA.11.17] **M. Kieffer**. Applied Interval Analysis (invited), *Conclusions Despite Uncertainties Workshop*, Linköping, Sweden, 2011.
- [CsA.11.16] O. Mullier, E. Goubault, **M. Kieffer** et S. Putot. Inner Approximation of the Range of Vector-valued Functions,, *Small Workshop on Interval Methods*, Bourges, 2011.
- [CaA.11.15] P. Duhamel et **M. Kieffer**. *Joint Protocol-Channel decoding: Taking the best from noisy packets*. Half Day Tutorial at IEEE NTMS 2011.

[2010]

- [CaA.10.14] P. Duhamel et **M. Kieffer**. *Joint Source-Protocol-Channel decoding*. Half Day Tutorial at IEEE VCIP 2010.

[2009]

- [CsA.09.13] F. Bassi, **M. Kieffer**, et C. Dikici. Distributed source coding with time-varying quality of Decoder Side Information, *Acorn/Newcom++ Workshop*, Barcelona, 2009.

[2008]

- [CsA.08.12] S. Gaubert, E. Goubault, **M. Kieffer**, L. Liberti, A. Mahboubi, S. Putot, et B. Werner. PASO: Proof, Static Analysis and Optimisation, *Premier forum annuel Digiteo*, Gif-sur-Yvette, 2008.

[2007]

[CsA.07.11] P. Duhamel et **M. Kieffer**. *Joint source and channel decoding: An idea whose time has come*. Half Day Tutorial at IEEE ICASSP 2007.

[2006]

[CsA.06.10] E. Walter et **M. Kieffer**. *Sur quelques idées fausses ayant des conséquences en identification (conférence plénière invitée)*. Journées Identification et Modélisation Expérimentales (JIME 2006), Poitiers, novembre 2006.

[CsA.06.09] E. Walter et **M. Kieffer**. *Sensitivity analysis for the guaranteed estimation of the parameters of onlinear continuous-time knowledge-based models*. 12th GAMM-IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 06), Duisburg, september 2006.

[CsA.06.08] **M. Kieffer** et E. Walter. *Guaranteed nonlinear state estimator for cooperative systems*. 12th GAMM-IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 06), Duisburg, september 2006.

[CsA.06.07] **M. Kieffer**. *Décodage source-canal conjoint : l'age de raison - Seconde partie (conférence plénière invitée)*. Journée Plénière du GDR ISIS - Thème D, Paris, décembre 2006.

[2005]

[CsA.05.06] E. Walter and **M. Kieffer**. *Guaranteed nonlinear parameter bounding via interval analysis*. International Conference Optimization and Control in honor of Boris Polyak on his 70th birthday, Moscou, mai 2005.

[2003]

[CsA.03.05] **M. Kieffer** Application to Parameter and State Estimation in a Bounded-Error Context (invited plenary). *Numerical Software with Result Verification International Dagstuhl Seminar, Dagstuhl Castle, Germany, January 19-24, 2003*

[2002]

[CsA.02.04] I. Braems, **M. Kieffer** et E. Walter. *Prior evaluation of the performance of a sensor or an estimator*. 10th GAMM-IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 02), Paris, september 2002.

[CsA.02.03] **M. Kieffer** et E. Walter. *Guaranteed nonlinear state estimator for cooperative systems*. 10th GAMM-IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Validated Numerics (SCAN 02), Paris, september 2002.

[1999]

[CsA.99.02] **M. Kieffer**, L. Jaulin, E. Walter et D. Meizel. Localisation et suivi garantis d'un robot par analyse par intervalles. Journées doctorales en automatique, Nancy, 1999.

[1997]

[CsA.97.01] **M. Kieffer** et E. Walter. Analyse par intervalles : application à un problème d'identification paramétrique. 5ème colloque A. Bouyssy, Université Paris-Sud, XI, Orsay, 24 - 25 mars 1997.

Reports

[2010]

[RCt.10.26] Projet RNRT DITEMOI – Diffusion et Téléchargement sur lien MOBILE IP – Rapport SP 4.2 – Démonstrateur, Version finale et rapport de tests, R. Fracchia (Ed.). Rapport SP 4.2, décembre 2010.

[RCt.10.25] C. Dikici, P. Duhamel, E. Dupraz, C. Guillemot, **M. Kieffer**, E. Magli, G. Olmo, A. Roumy, S. Shamaï, V. Toto-Zarasoá, et C. Weidmann Final report on the activities of WPR7, C. Guillemot and **M. Kieffer** (Eds). Delivrable 7.4, décembre 2010.

[2009]

[RCt.09.24] C. Dikici, T. Maugey, et **M. Kieffer** Rapport Final. Contrat ANR ESSOR, délivrable 3.4, décembre 2009.

- [RCt.09.23] C. Dikici, T. Maugey, et **M. Kieffer** Rapport Final. Contrat ANR ESSOR, délivrable 3.2, décembre 2009.
- [RCt.09.22] F. Bassi, C. Guillemot, **M. Kieffer**, A. Roumy et V. Toto-Zarasoia Rapport Final. Contrat ANR ESSOR, délivrable 3.1, octobre 2009.
- [2008]
- [RCt.08.21] A. Dziri, A. Diallo, **M. Kieffer** et P. Duhamel. heoretical analysis and implementation of H.264 AVC to H.264 SVC temporal transcoder. Contrat TVMSL, Alcatel-Lucent, février 2008.
- [RCt.08.20] T. Maugey, O. Crave, C. Dikici, M.A. Agostini, et **M. Kieffer** Intermediate report on single source video coding based on the DSC paradigm. Contrat ANR ESSOR, délivrable 2.2, Novembre 2007.
- [RCt.08.19] M. A. Agostini, M. Antonini, O. Crave, **M. Kieffer**, A. Roumy and V. Toto-Zarasoia Intermediate report on robust DSC schemes. Contrat ANR ESSOR, délivrable 2.4, Juillet 2007.
- [2007]
- [RCt.07.18] A. Bouabdallah, J. Lacan , G. Sabeva, **M. Kieffer** et P. Duhamel. Rapport intermédiaire élément 2. Contrat CNES SDMB Approfondissement Cross-Layer, février 2007.
- [RCt.07.17] A. Bouabdallah, J. Lacan , G. Sabeva, **M. Kieffer** et P. Duhamel. Rapport intermédiaire élément 3. Contrat CNES SDMB Approfondissement Cross-Layer, février 2007.
- [RCt.07.16] A. Bouabdallah, J. Lacan , **M. Kieffer** G. Sabeva, et P. Duhamel. Rapport final élément 5. Contrat CNES SDMB Approfondissement Cross-Layer, février 2007.
- [RCt.07.15] F. Bassi, C. Guillemot, **M. Kieffer**, A. Roumy, and V. Toto Zarasoia State of art techniques in distributed source coding. Contrat ANR ESSOR, délivrable 1.1, août 2007.
- [RCt.07.14] M. Antonini, M.-A. Agostini et **M. Kieffer** State of the art of single source video coding based on the DSC paradigm. Contrat ANR ESSOR, délivrable 1.2, août 2007.
- [RCt.07.13] C. Tillier et **M. Kieffer** State of the art of the DSC techniques applied in the multi-camera case. Contrat ANR ESSOR, délivrable 1.3, août 2007.
- [RCt.07.12] M. Antonini, M. A. Agostini, **M. Kieffer**, J. P. Piantanida, A. Roumy State of the art of robust DSC schemes. Contrat ANR ESSOR, délivrable 1.4, août 2007.
- [RCt.07.11] C. Poulliat, **M. Kieffer**. Méthodes compatibles avec les normes actuelles et codage/décodage vidéo robuste version intermédiaire. Rapport contrat ANR DIVINE, Délivrable 2.2, octobre 2007.
- [RCt.07.10] C. Guillemot, A. Roumy, F. Bassi et **M. Kieffer** Theoretical Contributions and Tools - Intermediate report. Contrat ANR ESSOR, délivrable 2.1, décembre 2007.
- [2006]
- [RCt.06.09] C. Marin, S. Ben-Jamaa, **M. Kieffer** et P. Duhamel. Etat de l'art des outils de codage vidéo. Rapport contrat CNES SDMB, Lot 1, 2006.
- [RCt.06.08] S. Badaoui, G. Sabeva, **M. Kieffer** et P. Duhamel. Codeur de source, et impact des erreurs sur les performances. Rapport contrat CNES SDMB, Lot 2.3, 2006.
- [RCt.06.07] S. Ben-Jamaa, A. Bouabdallah, P. Duhamel, **M. Kieffer**, J. Lacan et G. Sabeva. Simulations. Rapport contrat CNES SDMB, Lot 3, juin 2006.
- [RCt.06.06] J. Jung, **M. Kieffer**, D. Nicholson, C. Poulliat, T. Turletti. Etat de l'art du codage scalable en compression et en robustesse. Rapport contrat ANR DIVINE, Délivrable 1.1, septembre 2006.
- [RCt.06.05] A. Bouabdallah, P. Duhamel, **M. Kieffer**, J. Lacan et G. Sabeva. Rapport intermédiaire éléments 1 et 4. Contrat CNES SDMB Approfondissement Cross-Layer, décembre 2006.
- [2005]
- [RCt.05.04] S. Ben-Jamaa, **M. Kieffer** et P. Duhamel. Etat de l'art en décodage conjoint. Rapport contrat CNES SDMB, Lot 1.4, 2005.
- [2004]

[RCt.04.03] C.M. Lee, **M. Kieffer** et P. Duhamel. Décodage souple de codes VLC exploitant les contraintes imposées par le codeur – application au décodage de séquences vidéo. Rapport final SP 3 contrat RNRT VIP, 2004.

[2003]

[RCt.03.02] **M. Kieffer**, P. Duhamel, C. Lambert-Nebout et G. Lesthivent. Transmission d’images fixes par satellite. Rapport Final contrat RNRT COSOCATI, 2003.

[RCt.03.01] C.M. Lee, **M. Kieffer** et P. Duhamel. Vidéo sur Canal Radio–Mobile. Rapport Final contrat RNRT COSOCATI, 2003.

Theses

[2005]

[The.05.02] **M. Kieffer**. *Estimation garantie, estimation robuste, application à la robotique et aux communications numériques*. Habilitation à diriger des recherches, Université Paris-Sud, XI, France, 2005.

[1999]

[The.99.01] **M. Kieffer**. *Estimation ensembliste par analyse par intervalles, application à la localisation d’un véhicule*. Thèse de doctorat, Université Paris-Sud, 11, France, 1999.