

I CURSO INTERNACIONAL DE CONFIABILIDADE HUMANA 6 a 8 de Dezembro 2005 Rio de Janeiro

Curriculum vitae

Erik Hollnagel

Personal Data:

Born: April 10, 1941

Nationality: Danish

Education: M. Sc. (*cand. psych.*, psychology) from University of Copenhagen, Denmark, 1971.

Ph. D., (*lic. psych.*, psychology) from University of Aarhus, Denmark, 1981.

Record of employment

1999-present: **Full Professor**, Department of Computer and Information Science, University of Linköping (Sweden)

1997-1999: **Adjunct Professor**, Human-Machine Interaction, University of Linköping (Sweden)

1995-1999: **Principal Advisor**, OECD Halden Reactor Project (Norway)

1993-1995: **Technical Director**, Human Reliability Associates Ltd., (UK)

1992-1993: **Scientific consultant**, European Institute of Engineering and Cognitive Science (EURISCO), France

1991-1993: **Principal scientist**, Space Division, CRI

1990-1992: **External lecturer** (Artificial Intelligence), University of Copenhagen.

1989-1991: **Senior consultant**, Business Development, Space Division, CRI

1987-1989: **Manager** for the Production & Development Department of the AIP Division of CRI.

1986-1987: **Manager** for the Research & Development Department of the AIP Division of CRI.

1985-1986: **Senior researcher** at Advanced Information Processing Division (AIP) of Computer Resources International (CRI), Copenhagen, Denmark.

1985-1986: **Associate professor** at the Psychological Laboratory, University of Copenhagen. Teaching and research on man-machine systems.

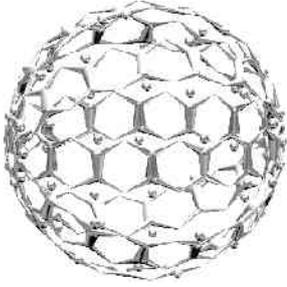
1982-1985: **Head** of Man-Machine Interaction Research Division, OECD Halden Reactor Project (Norway).

1978-1982: **Research fellow** at Risø National Laboratory, Electronics Department.

1971-1981: **Associate professor** at Institute of Psychology, University of Aarhus, Denmark

1966-1971: Studied psychology at University of Copenhagen, graduated summer 1971.

1962-1968: **Computer programmer** at 'I/S Datacentralen af 1959', part time from 1967.



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Research and teaching experience:

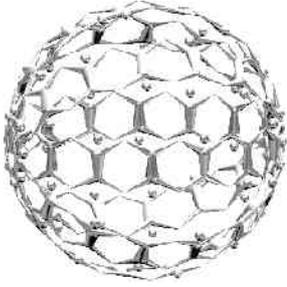
Areas: Cognitive Ergonomics, Cognitive Systems Engineering;
Human Errors Analysis, Human Reliability Analysis;
Human-Machine Systems / Human-Computer Interaction / Automation design
User Modelling and Computer Simulations;
Decision Theory and Intelligent Decision Support Systems;
Expert Systems, AI and Knowledge-Based Systems.

Professional experience: Applied & basic research, consulting, lecturing and project management within the domains of nuclear power, industrial processes, aerospace, aviation, ground transportation, healthcare
Project management of large-scale international projects, including several CEC ESPRIT projects (GRADIENT, ITSIE, ARCHIE, VIVA, SRG).
Consultant for CEC DGXIII (ESPRIT Basic Research), 1989-1990

Teaching: University level undergraduate, graduate, and post-graduate teaching (1971-78; 1985-87, 1990-92, 1997-present).
Doctoral thesis advisor / official opponent in Denmark, Norway, Sweden, Holland & France.

Other: Course and conference organisation, international courses, lecturing and tutorials.
Expert consultant for CEC, Sandia National Laboratory (USA), Airbus Industrie (F), Eurocontrol (F), NUPEC (Japan), Hitachi (Japan), Saab Automobile (S), Autoliv (S), Landstinget i Östergötland (S), Landstingsförbundet (S).

Publications: 350+ publications including ten books, book chapters, journal papers, conference proceedings and presentations, and technical reports.



I CURSO INTERNACIONAL DE CONFIABILIDADE HUMANA 6 a 8 de Dezembro 2005 Rio de Janeiro

- Books:** Hollnagel, E., Mancini, G. & Woods, D. D. (Eds.) (1986). *Intelligent decision support in process environments*. Berlin: Springer Verlag.
- Mancini, G. Woods, D. D. & Hollnagel, E. (Eds.) (1988). *Cognitive engineering in dynamic environments*. London: Harcourt Brace Jovanovich.
- Hollnagel E. (Ed.), (1989). *The reliability of expert systems*. Chichester: Ellis Horwood, Ltd.
- Hollnagel, E. (1993). *Human reliability analysis: Context and control*. London: Academic Press. (Japanese translation, 1996. Tokyo: Kaibundo.)
- Hoc, J.-M., Cacciabue, P. C. & Hollnagel, E. (Eds.), (1995). *Expertise and technology: Cognition and human-computer co-operation*. New York: Lawrence Erlbaum Associates.
- Hollnagel, E. (1998). *CREAM - Cognitive Reliability and Error Analysis Method*. London: Elsevier.
- Dekker, S & Hollnagel, E. (Eds.), (1999). *Coping with computers in the cockpit*. Aldershot, UK: Ashgate
- Hollnagel, E. (Ed.), (2003) *Handbook of cognitive task design*. Erlbaum.
- Hollnagel, E. (2004). *Barriers & accident prevention*. Aldershot, UK: Ashgate.
- Hollnagel, E. (2005). *Joint cognitive systems: Foundations of cognitive systems engineering*. Boca Raton, FL: CRC Press / Taylor & Francis.
- Hollnagel, E., Woods, D. D. & Leveson, N. (Eds.), (2005). *Resilience engineering: Concepts and precepts*. Aldershot, UK: Ashgate.
- Woods, D. D. & Hollnagel, E. (2006). *Joint cognitive systems: Patterns in cognitive systems engineering*. Boca Raton, FL: CRC Press / Taylor & Francis.

Honours and others:

Academic: **Honorary Visiting Professor**

Department of Psychology, University of Manchester (1994 - 2001)

Adjunct research director, Swedish Defence Research Agency, MSI Division (2005 -)

Michael Fam Visiting Professorship in Engineering, Nanyang Technical University, (Singapore, July-August 2004)

Visiting research fellow, National Maritime Research Institute (Japan, February, 2003).

Visiting Scientist, Wright-Patterson Air Force Base (OH, USA, May 2002)

Visiting professor, University of Kyoto (January - March, 2000)

Honorary Senior Research Fellow, University of Birmingham (1994-1996)

Visiting Scientist, Wright-Patterson Air Force Base (OH, USA, May 1997)

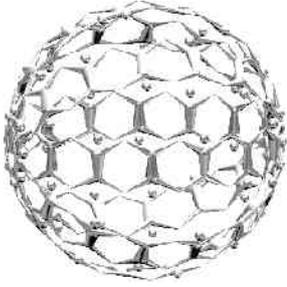
Visiting research fellow, Japan Atomic Energy Research Institute (Japan, April, 1994).

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Organisations: **Member, Swedish Reactor Safety Council** (1996 - 2002)
President of the European Association of Cognitive Ergonomics (1994 - 2000)
Representative (International Region), **Council of the Association of Computing Machinery (ACM)** (1994 - 1997).
Member, Risk Committee, Danish Academy of Technical Sciences, (1986-1989)

Journals: Joint **Editor-in-Chief** of the **International Journal of Cognition, Technology & Work** (Springer Verlag, London).
Member of the International Consultant Board of 'Le Travail humain'.
Member of the Advisory Board of **Cognitive Science Quarterly**
Member of the International Advisory Board of **Ergonomia**
Member of the Editorial Board of **Theoretical Issues in Ergonomics Science**
Member of the Editorial Board of **International Journal of Cognitive Ergonomics**
Member of the Editorial Board of the **IEA Journal of Ergonomics Research**
Advisory Committee for the **Journal of Korean Nuclear Society**

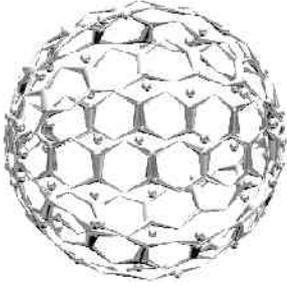
Other activities: Advisory Board of the **Handbook of Human Factors and Ergonomics** (Third Edition).

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Bernard PAVARD

Born : 3.11.48

Nationality: French

PRESENT ACTIVITY ‘

- Research Director (CNRS National Research Centre)
- Director of the GRIC research Group (Human Factor & Cognitive Engineering)
- Professor in Cognitive Engineering (University P. Sabatier, Toulouse)

DIPLOMA

- Master in Theoretical Physics (1971) and Neurophysiology (1971)
- PhD in Cybernetics and Information Processing (1975)
- Post-doc in Psycholinguistics (1975-1980)
- Habitation to teach at University : Psychology, ergonomics & computer sciences (1987)

TEACHING EXPERIENCE

- Assistant professor CNAM (1973-1989) Ergonomics and work physiology
- Professor at Paris-8 University (1989-1993) Ergonomics & information technology
- European project coordinator 'Training and Mobility for Researchers'
- CM - Models of cooperation (1999-2001)
- CSCW Computer Supported Cooperative Work (2001-2003)
- COSI Complexity in social Sciences (2002-2005)
- Management of a Tele training project with Burkina Faso (2004-2005)

RESEARCH MANAGEMENT IN FRANCE

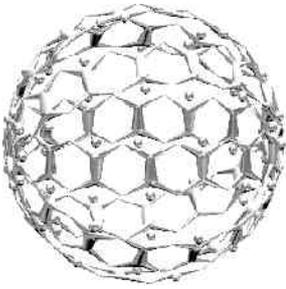
- Scientific director of the industrial laboratory ARAMIIHS (MATRA MARCONI SPACE) (1993-1995)
- Coordinator of the 'Cognitive Research Network' (1995-1998) - about 100 researchers in the Midi Pyrénées area.
- Research manager of the national program 'Information Technologies & Human Factors' (2002-2004)
- Scientific director of the GRIC laboratory (Cognitive Engineering research lab.)
- Scientific management for the RNRT (National Network for Communication Technologies (Industry Minister)

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RESEARCH MANAGEMENT AT INTERNATIONAL LEVEL

- EU Expert in several multidisciplinary programs ("Transport Telematics" , Complexity, Human Factors, Reliability, etc.)
 - European network coordinator : COTCOS : "Cooperative Technologies for Complex Work Settings" (1997-1999), COSI : « Complexity in Social Science » (2000-2003)
 - Non EU project management with Brazil, Mexico, Russia, US, Algeria, Tunisia, Iran, BurkinaFaso
- ACTUAL TOPICS OF INTEREST** (<http://www.irit.fr/GRIC/>)

- National and International Crisis Management : how to support first actions during disaster management? (project Emergesat with the CNES National Space Agency)
- Multi user cooperation in virtual spaces with applications in Human Factors, Neuroscience & Industrial training
- Complexity in social Science (Design and multi agent modeling of complex socio technical systems)

INDUSTRIAL RESEARCH (Research management of industrial laboratories)

- Air Traffic Control : Design of intelligent decision systems (1991-2003).
- Urgency Decision Centres : Design of robust communication and decision systems (medical and fireman centres) (1995-2005)
- MATRA Marconi Space : Army Information System Design and Assessment (2000-2003)
- CNET - France Telecom Joint Research Laboratory for the design of mobile technologies 1999-2005.

Research interests

Aerospace ergonomics (1974-1976)

- PhD "Role du système visuo-vestibulaire dans la perception de la vitesse"
- Participation to the SpaceLab research program, NASA.

Psycho-Linguistics (1977-1990)

- Role of morphemic structure during lexical access
- Ergonomics of word processing systems (in collaboration with KODAK company Rochester - ISA)

Cooperative technologies (1990-1998)

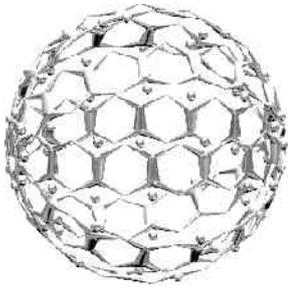
- Designing robust control systems
- Reliability and efficiency in complex cooperating systems (NPP, ATC, etc.)

Applications of complexity theory in social sciences (1998-2005)

- Modelling the emergence of mutual knowledge in a collaborative teams

Virtual reality and training (2002 2005)

- Social interaction in virtual spaces
- Training for collaborative teams



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Personal consulting

Interface design for EASTMAN KODAK, Rochester, N.Y., USA
(1986-1987)

- Neural network based interfaces
- Graphic interfaces for high end printers

Artificial intelligence tools for EDF (French National Gas Company) (1987-1990)

- Interfaces based on voice recognition
- Expert systems (order2)

Design of the Paris Emergency Centre (1998-99)

Consulting in ergonomics for the European Community (1998- 2002)

- Research Industry transfer
- Transport Telematics projects (definition of a human factors grid analysis)
- **Conférencier invité**

Colloque "Space Perception and Movement Execution".. From movement perception to dynamics of cognition. En hommage à A. Berthoz. Collège de France. Paris

Colloque Pluridisciplinaire : Espace du Geste et de la Posture. Univ. Caen, France. Organisé par FF.G. Lestienne & F. Thullier.

Conférence d'ouverture du Congrès d'Ergonomie Brésilien ABERGO'99, Salvador, Brésil.

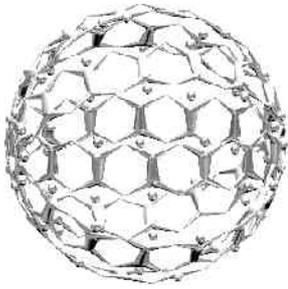
Colloque Pluridisciplinaire : Etat des recherches sur les pratiques et représentations de la technique. Complexité et analyse des activités coopératives instrumentées. Collège de France. Paris

Conférence Européenne « Human Potential Network » : Five Year Assessment of the Third and Fourth Framework Programmes. » Conférence introductive sur le fonctionnement des projets européens TMR. 9 June 2000. Bruxelles, Belgique.

Publications dans des ouvrages

Pavard B. (2000) Apport des théories de la complexité à l'étude des systèmes coopératifs. In « Le Travail Collectif, perspectives actuelles en ergonomie », Ed. T.H. Benckroun, A.Weill-Fassina. OCTARES, France.

Pavard B.(2001) Complexity paradigm for the study of cooperative systems . In : Control in complex systems. Ed. P. Salembier & H. Benckroun. Springer Verlag.



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Few publications

Rateb F., Pavard B., Bellamine Bensaoud N., Merelo J.J., Arenas M.G. Modeling malaria with multi-agent system. In : Int. J. of Intelligent Information Technologies, 1(2), 17-27, April-June 2005.

Dugdale J., Pavard B., Pallamin N. (2005) Holistic validation and calibration of a virtual reality. In : Simulation & Gaming: An Interdisciplinary Journal of Theory, Practice and Research.

Bellamine-Ben Saoud, N., Dugdale, J., Pavard, B., Ben Ahmed, M. [Towards planning for Emergency Activities in Large -Scale Accidents: An Interactive and Generic Agent-Based simulator.](#) In Proceedings of the International workshop on Information Systems for Crisis Response and Management (ISCRAM 2004). 3-4 May 2004.

Darcy, S., Dugdale, J., Pallamin, N., Pavard, B. (2002). "[Simulation en situation naturelle et réalité virtuelle : Deux approches complémentaires pour la conception de systèmes coopératifs en situation d'urgence médicale.](#)" In proceedings of ERGO IA' 2002 Ergonomie et Informatique Avancee. Biarritz, France. 8 - 10 October 2002.

Dugdale., Pavard B., Soubie, J.L. (1999) Design Issues in the Simulation of an Emergency Call Centre. Proceedings of the 13th European Simulation Multiconference (ESM'99) Warsaw, Poland, June 1-4.

Marmaras N., Pavard B. (1999) Problem-driven approach for the Design of Information Technology Systems Supporting Complex Cognitive Tasks. Cognition, Technology & Work.

Dugdale J., Pavard B., Soubie, J.L. (1999) The Ergonomic analysis of an emergency call centre and the subsequent design of a computer based simulation. Colloque "Approches d'analyse du Travail collectif". Paris, May.

Marchand T., Pavard B. Figueredo M. & Vidal M. (2000) Collective decision making in distributed situation where information is modality decorellated. In Actes Colloque SELF'99, France.

Dugdale, J., Pavard, B. (2000) The application of a cognitive engineering methodology to agent based simulation in the social science. In Actes Colloque. "Workshop 2000 on Agent Based Simulation" Passau, Germany, 2 -3 May.

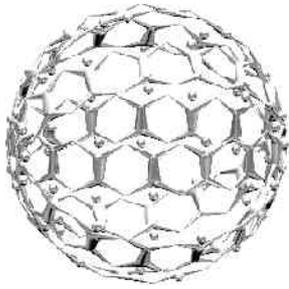
Marchand T., Figueredo M., Pavard B., Vidal M.(2000) Coopération et sécurité dans les systèmes complexes : le cas de la plongée profonde sur les installations pétrolières "offshore". In Actes Colloque SELF'00, France.

Figueredo M., Marchand T., Pavard B., Vidal M.(2000) In Actes du Congrès ABERGO'99, Salvador, Brésil.

Darcy S., Pavard B. (2000) Apports de la télétransmission de données multimédia pour la coopération lors de diagnostics médicaux d'urgence. In Actes Colloque SELF'00, France.

Dugdale, J., Pavard, B., Soubie, JL., 2000, A Pragmatic Development of a Computer Simulation of an Emergency Call Centre. To appear in the *Proceedings of COOP 2000, Fourth International Conference on the Design of Cooperative Systems.* Cannes France.

Pavard, B. and Dugdale, J. (2000) "The contribution of complexity theory to the study of socio-technical systems." To appear in proceedings of the *International Conference on Complex Systems.* May 21-26 2000, Nashua, NH, USA.



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Wybo Jean-Luc

Domicile : 8, les hauts de Veyrière, 06560 Valbonne
Né le 14 juin 1950
E-mail : jean-luc.wybo@ensmp.fr

Ingénieur de l'INSA de Lyon, 1974
DEA de l'Université de Nice, 1981
Docteur de l'Université de Nice, 1991 ("Expertgraph: Analyse basée sur des connaissances et suivi temps réel d'information géographique évolutive, application à la prévention des incendies de forêt")

Maître de recherches à l'école des Mines de Paris
Professeur associé à l'école de Chimie de Paris

Responsable scientifique au Pôle Cindyniques de l'école des Mines de Paris

- Responsable de l'équipe de recherche « apprentissage organisationnel et gestion des crises ».
- Responsable du programme de Master of Sciences « maîtrise des risques industriels »**
- Ce programme en deux ans est co-habilité par l'ENSCP et l'ENSMP

Implication dans des institutions françaises et internationales

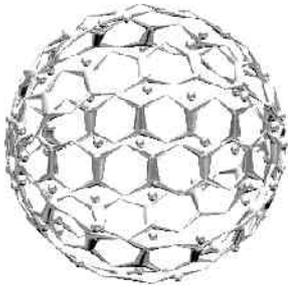
Vice-président du comité scientifique de l'INERIS (Institut National de l'Environnement Industriel et des Risques) de 1999 à 2005
Membre du comité scientifique EPR (Evaluation et prise en compte des risques naturels et technologiques) du Ministère de l'Environnement
Responsable du groupement d'étude et de recherche REXAO (retour d'expérience et apprentissage organisationnel dans la gestion des risques naturels et technologiques)
Executive editor de la revue « International Journal of Emergency Management », aux éditions Inderscience Enterprises Ltd (GB)

Chargé de mission pour les ministères de l'environnement et de l'intérieur

Mission de retour d'expérience sur la gestion des inondations de novembre 1999 dans l'Aude et les Pyrénées orientales, Février à Octobre 2000
Mission de retour d'expérience sur la gestion de la marée noire de l'Erika, avril à octobre 2001
exercice d'accident ferroviaire, pour le compte du Ministère de l'intérieur Finlandais. Mai-juin 2002
Mission d'analyse de la gestion des inondations de septembre 2002 dans le Gard, mars-juin 2003
Mission de retour d'expérience sur des d'exercices de gestion de crise en 2004 (accident sur autoroute, accident de transport de matières radioactives).

Autres activités de formation

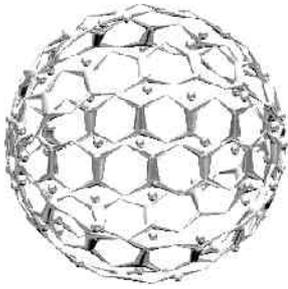
Chargé de cours à l'ENGREF, à l'ENSAM, à l'ENA et à l'ENSOSP.
Formation permanente des cadres de l'ONE (Office National de l'Electricité du Maroc) à la gestion des risques et la sûreté de fonctionnement des installations industrielles (1999 et 2000).
Responsable du programme de formation à la gestion des risques des cadres de production du groupe Sanofi-Aventis (2003-2006)



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Principales publications

- Wybo J.L., Carréga P. *Implication de l'Informatique Avancée à la prévention des incendies de forêt et à la gestion des espaces menacés*, Revue Forestière Française n° spécial 1990
- Wybo J.L., Guarnieri F., Richard B. *Forest fire Danger Assessment : Combination of methods for efficient decision making*, Safety Science 20 (1995), pp. 61-70, Elsevier
- Guarnieri F., Wybo J.L., *Spatial Decision Support and Information Management, Application to Wildland fire Prevention : the WILFRIED system*, Safety Science 20 (1995), pp. 3-12, Elsevier
- Wybo J.L., Geffraye F., Russeil A. *PROFIL: a decision support tool for metallic sections design using a CBR approach*, Lecture notes in Artificial Intelligence 1010, Veloso.Aamodt (Eds.), Springer, October 1995, pp. 33-42
- Wybo J.L., Darque-Ceretti E. *Associating decision support and training: METAN. A learning system for material observation and analysis*, European Journal of Engineering education, Vol 21, N°3, 1996
- Wybo J.L. *FMIS : a decision support system for forest fire prevention and fighting*, IEEE Transactions on Engineering Management, Vol 45, NO. 2, May 1998
- Wybo J.L. *Introduction aux Cindyniques*, éditions ESKA, Paris, 1998
- Wybo J.L., Madland Kowalski K., *Command Centers and Emergency Management Support*, Safety Science 30 (1998), pp. 131-138, Pergamon.
- Wybo J.L., Delaitre S., *Gestion des connaissances pour la gestion des risques, application à la lutte contre les feux de forêt*, REE, n°7, juillet 2000, pp. 79-85
- Jaber A., Guarnieri F., Wybo J.L., *Intelligent software agents for forest fire prevention and fighting*, Safety Science 39 (2001), pp 3-17
- Wybo J.L., Colardelle C., Poulossier M.P., Cauchois D., *Méthodologie de partage d'expérience de gestion d'incidents*, Récents progrès en génie des procédés, vol 15 (2001), N° 85, pp 115-128, Eds Lavoisier, Technique et documentation
- Wybo J.L., *Risky business*, TOMORROW, 100, , pp 72-73, June 2001
- Wybo J.L., Delaitre S., Therrien-Eyquem M.C. *Formalization and use of Experience in forest fires management*, Journal of contingencies and crisis management vol 9, N° 3, september 2001, pp 131-137
- Wybo J.L. *Vers une gestion globale des risques climatiques*, publications de l'association Internationale de Climatologie, 2000, Volume 13, août 2001.
- Van Wassenhove W., Wybo J.L. (2002), *Méthodologie de retour d'expérience pour la mise en place d'une mémoire collective des alertes alimentaires*, in Prévision, analyse et gestion du risque alimentaire, pp 245-250, Eds Tec & Doc.
- Wybo J.L. (2002), *Organisation, apprentissage et gestion des risques, l'apport des cindyniques*, in Prévision, analyse et gestion du risque alimentaire, pp 177-189, Eds Tec & Doc.
- Wybo J.L., Lonka H. (2002), *Emergency management and Information Society : how to improve the synergy ?*, Int. Journal of Emergency Management, Vol 1, N°2, pp 183-190
- Wybo J.L., (2002), *L'Erika : exemple d'une gestion de crise*, Revue de la Gendarmerie Nationale, N° 205, décembre 2002, pp 51-58
- Colbeau-Justin L, Ledoux B, Wybo J.L., (2003), *Etude psychosociologiques concernant l'information et*



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- l'alerte pendant l'épisode extrême des 8 et 9 septembre 2002 (crues du Gard et de l'Hérault)*, Ministère de l'écologie et du développement durable, mai 2003, 155 p
- Esquivie J.L., Wybo J.L. (2003), *11/9 : a historical perspective*, International Journal of Emergency Management, Vol 1, N°3, 290-297
- Valancogne J., Wybo J.L., Nicolet J.L. (2003), *De la défense en profondeur à la cartographie des risques*, Risques, N° 55, 19-34
- Wybo J.L. (2004), *Le rôle du retour d'expérience dans la maîtrise des risques et des crises*, Qualitique, juin 2004, pp 27-30
- Wybo J.L., (2004), *Mastering risks of damage and risks of crisis : the role of organizational learning*, International Journal of Emergency Management, Vol 2, N°1&2, pp. 22-34
- Wybo J.L., Ducloy J., Roche J.P. (2005), *Vers une culture de maîtrise des risques au sein d'ADP. Une méthode fondée sur l'appropriation*, Préventique, N° 80, mars-avril 2005, pp 35-42
- Lonka H., Wybo J.L., (2005), *Sharing of experiences: a method to improve usefulness of emergency exercises*, International Journal of Emergency Management, Vol. 2, No.3 pp. 189 202