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National Tsing Hua University
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PROFESSIONAL HISTORY

National Tsing Hua University (Taiwan)

Associate Professor, Center for General Education & Institute of History
(02/2006-present)

Institute for Advanced Study, Princeton, NJ (USA)

Member, School of Historical Studies (01/2007-04/2007)

Université du Québec à Montréal (Canada)

Assistant Professor (tenure-track), Mathematics Didactics section, Department of
Mathematics (08/2004-01/2006)

Institut National de Recherche Pédagogique (Paris, France)

Visiting Professor (May-August 2004; July 2007)

McGill University (Montréal, Canada)

Course Lecturer, Departments of Mathematics (09/2000 – 05/2004)

Visiting Researcher, Department of Mathematics (09/1999 – 08/2000)

Concordia University (Montréal, Canada)

Research Assistant Professor, Department of Mathematics (07/2000 – 06/2001).

Université de Montréal

Associated Researcher, Centre of East-Asian Studies (10/1999 – 07/2004).

The University of Hong Kong

Postdoctoral Fellow, Department of Mathematics (06/1996 – 06/1999);

Honorary Research Fellow, Centre of Asian Studies (08/1999 – 07/2005);

Research Fellow, Centre of Asian Studies (08/1996 – 08/1999).

CNRS (Centre National de la Recherche Scientifique, Paris, France)

• Bourse Diderot Postdoctoral Fellow (11/1990-10/1991);

• Chiang Ching-Kuo Foundation European Postdoctoral Fellow (6/1992 - 6/1994);

- Visiting Research Fellow (1992; 1995).

Academy of Sciences of the USSR/Russia

Researcher, Department of Systemic Analysis of the Development of Science, Institute of the History of Science and Technology (Moscow, 04/1989-11/1990);

Researcher, Laboratory of Programming, Programming Systems Institute, Pereslavl'-Zalesskiï (01/1986-04/1989).

Institute for Research in Experimental Physics (Arzamas-16, USSR/Russia)

Researcher, Department of Software Research and Development (8/1980-12/1982).

EDUCATION

Academy of Sciences, Moscow (USSR)

Ph.D. ("Kandidat nauk") in Physics and Mathematics (History of Mathematics), the Institute of History of Science and Technology (1989).

Moscow State University (USSR)

M.S., Mathematics (Mathematical Logic, 1980).

PUBLICATIONS

Edited books and special issues of scholarly journals

A special issue on science in 14th century China: a case study of Daoist master and polymath Zhao Youqin (1271-1335?). (Taiwanese Journal for Philosophy and History of Science, no. 8, 1996-1997 [vol. 5, no. 1, 1996]). 189 pp. Guest editor.

Sous les nombres, le monde. Matériaux pour l'histoire culturelle du nombre en Chine ancienne (Extrême-Orient Extrême-Occident, no. 16), Paris: PUV, 1994. 172 pp. Guest editor.

Notions et perceptions du changement en Chine: textes présentés au IXe congrès de l'Association européenne d'études chinoises. Paris: Collège de France, Mémoires de l'Institut des Hautes Etudes Chinoises, vol. 36, 1994. xii+267 pp. Co-editor (with V.Alleton).

Modèles et structures des textes chinois anciens. Les formalistes soviétiques en sinologie (Extrême-Orient Extrême-Occident, no. 13), Paris: PUV, 1991. 161 pp. Co-editor (with K.Chemla and V.Lichtmann).

Book chapters and articles in refereed journals

- “Didactical dimensions of mathematical problems: ‘weighted distribution’ in a Vietnamese mathematical treatise”. In C. Proust and A. Bernard (eds.), *Ancient scientific texts and instruments in educational context*, Boston Studies in Philosophy of Science (under revision); forthcoming in 2011.
- “Evangelization, Politics, and Technology Transfer in the 17th Century Cochinchina: the Case of Joao da Cruz”. In L. Saraiva and C. Jami, *Portugal and East Asia IV: Portuguese Missionaries in Late Ming and Early Qing China*, Singapore: World Scientific (accepted); forthcoming in 2011.
- “Demonstration in traditional Chinese and Vietnamese Mathematics: Argumentation for State Examinations”. K. Chemla (ed.), *History and historiography of mathematical proof in ancient traditions*, Cambridge University Press (accepted); forthcoming in 2011.
- “An Early Japanese Work on Chinese Mathematics in Vietnam: Mikami Yoshio’s Study of the Vietnamese Mathematical Treatise *Chi minh toan phap* 指明算法”. In Komatsu Hikosaburo (ed.), *Seki Takakazu and his Mathematical Activity*, Tokyo: Springer; forthcoming in 2010.
- “Commentaries upon commentaries: The translation of the *Jiu zhang suan shu* 九章算術 by Karine Chemla and Guo Shuchun (essay review)”. *Historia Mathematica* (available online 20 November 2009; doi:10.1016/j.hm.2009.07.010 ; printed in vol. 37 (2010), pp. 281-301).
- “Mathematics and Mathematics Education in Traditional Vietnam”, *Oxford Handbook of the History of Mathematics*, edited by E. Robson and J. Stedall, Oxford University Press, 2009, pp. 153-176.
- “Mathematics in Vietnam”. In H. Selin (ed.), *Encyclopaedia of the History of Non-Western Science: Natural Science, Technology and Medicine*, Heidelberg: Springer-Verlag, 2008, pp. 1425-1432.
- “Traditional Vietnamese Astronomy in Accounts of Jesuit Missionaries” In Luis Saraiva and Catherine Jami (eds.), *History of mathematical sciences, Portugal and East Asia III: The Jesuits, the Padroado and East Asian Science (1552-1773)*, Singapore etc.: World Scientific, 2008, pp. 161-185.
- “Raisonnement par analogie dans les mathématiques chinoises”. In M.-J. Durand-Richard (ed.), *Le statut de l’analogie dans la démarche scientifique, Perspective historique* [The status of the analogy in scientific work: A historical perspective]. Paris: l’Harmattan, 2008, pp. 61-95.
- “Geometrical Diagrams in Liu Hui’s Commentary on the *Jiuzhang suanshu*”. In F. Bray, V. Dorofeeva-Lichtmann, G. Métaillé (eds.), *Graphics and Text in the Production of Technical Knowledge in China*, Leiden: Brill, (Sinica Leidensia 79), 2007, pp. 425-459.
- “State mathematics education in traditional China and Vietnam: formation of the “mathematical hagiography” of Luong The Vinh (1441-1496?)” in Trinh Khac Manh and Phan Van Cac (eds.), *Nho Giao o Viet Nam/ Confucianism in Vietnam*. Hanoi: Social Sciences Publishing House, 2006, pp. 272-309.

- “Traditional Vietnamese Mathematics: The case of Luong Thê Vinh (1441-1496?) and his treatise *Toan phap dai thanh* (Great Compendium of Mathematical Methods)”, U Kyi Win (ed.), *Traditions of Knowledge in Southeast Asia*, Yangon: Myanmar Historical Commission, 2005, part 3, pp. 156-177.
- “Early mathematical giftedness and its social context: the cases of imperial China and Soviet Russia” (co-authored with V. Freiman). *Journal of the Korea Society of Mathematical Education, Series D: Research in Mathematical Education*, vol. 8, no. 3, September 2004, pp. 159–175.
- “Astronomical Data in a Daoist Treatise: Chen Zhixu’s commentary on the *Scripture of Salvation (Duren jing)*”. In: J. Lagerwey (ed.), *Religion and Chinese Society*, Hong Kong: the Chinese University of Hong Kong Press, 2004, vol. 2, pp. 519-552.
- “On the origins of the *Toan phap dai thanh* (Great Compendium of Mathematical Methods).” In: Y.Dold-Samplonius, J.W. Dauben, M.Folkerts, B. van Dallen (eds.), *From China to Paris: 2000 years transmission of mathematical ideas*. Stuttgart: Franz Steiner Verlag, 2002, pp. 369-410.
- “Official curriculum in traditional Chinese mathematics: How did candidates pass the examinations?” (co-authored with Siu Man-Keung). *Historia Scientiarum*, vol. 9, no. 1 (1999), pp. 87-99.
- “Calculation of π by Zhao Youqin”. In: Y.-S. Kim and F.Bray (eds.), *Current perspectives in the history of science in Asia*, Seoul: Seoul National University Press, 1999, pp. 278-290.
- “The mathematical work of Zhao Youqin: remote surveying and the computation of π ”. *Taiwanese Journal for Philosophy and History of Science*, no. 8 (1996-1997) (vol. 5, no. 1), pp. 129-189.
- “Science and Daoism: an introduction”. *Taiwanese Journal for Philosophy and History of Science*, no. 8 (1996-1997) (vol. 5, no. 1), pp. 1-58.
- “Zhao Youqin and his calculation of π ”, *Historia Mathematica*, vol. 24 (1997), pp. 301-331.
- “Quantitative analysis of Liu Xin's standard measuring vessels”, in: K.Hashimoto, C.Jami, and L.Skar (eds.), *East Asian Science: Tradition and Beyond*, Osaka: Kansai University Press, 1995, pp. 377-384.
- “Supplementary data on the values of pi in the history of Chinese mathematics”, *Philosophy and the history of science: A Taiwanese Journal*, vol. 3, no. 2 (1994), pp. 95-110.
- “Transformation of objects in ancient Chinese mathematics and their evolution”. In: V.Allelon and A.Volkov (eds.), *Notions et perceptions du changement en Chine*. Paris: Collège de France, Mémoires de l'Institut des Hautes Etudes Chinoises, vol. 36, 1994, pp. 133-148.
- “Large numbers and counting rods”. In: A.Volkov (ed.), *Sous les nombres, le monde. (Extrême-Orient Extrême-Occident*, no. 16), Paris: PUV, 1994, pp. 71-92.
- “Calculation of pi in ancient China: from Liu Hui to Zu Chongzhi”. *Historia Scientiarum*, vol. 4, no. 2 (1994), pp. 139-157.

- “Analogical reasoning in ancient China: some examples”. In: K.Chemla (ed.), *Regards obliques sur l'argumentation en Chine (Extrême-Orient Extrême-Occident*, no. 14), Paris: PUV, 1992, pp. 15-48.
- “Recherches sur les structures des textes chinois anciens en URSS” (essay review). In: K.Chemla, A.Volkov, V. Lichtmann (eds.), *Modèles et structures des textes chinois anciens (Extrême-Orient Extrême-Occident*, no. 13), Paris: PUV, 1991, pp. 11-30.
- “Structure d'un traité mathématique: l'exemple du *Hai dao suan jing*”. In: K.Chemla, A.Volkov, V.Lichtmann (eds.), *Modèles et structures des textes chinois anciens (Extrême-Orient Extrême-Occident*, no. 13), Paris: PUV, 1991, pp. 93-100.
- “La structure des textes chinois anciens: quelques remarques”. In: K.Chemla, A.Volkov, V.Lichtmann (eds.), *Modèles et structures des textes chinois anciens (Extrême-Orient Extrême-Occident*, no. 13), Paris: PUV, 1991, pp. 155-161.
- “The treatment of Chinese mathematics by J.Needham and by his critics (essay review)” (Traktovka kitaiskoï matematiki Dzh. Nidemom i ego kritikami (obzor), in Russian). In: A.I. Kobzev (ed.), *Modern studies in history of science: science in traditional China*. Moscow: Institute for the Information in Social Sciences, 1987, pp. 106-127.
- “On the geometrical origin of ancient Chinese method of square and cubic root extraction” (O geometricheskom proiskhozhdenii drevnekitaïskogo metoda izvlecheniya kvadratnykh i kubicheskikh korneï, in Russian). In: S.V.Volkov (ed.), *History and culture of Eastern and South-Eastern Asia (Istoriya i kul'tura Vostochnoi i Yugo-Vostochnoi Azii)*, Moscow: Nauka, 1986, part 1, pp. 172-192.
- “On the title of one ancient Chinese mathematical treatise” (O nazvanii odnogo drevnekitaïskogo matematicheskogo traktata, in Russian). In: S.V.Volkov (ed.), *History and culture of Eastern and South-Eastern Asia (Istoriya i kul'tura Vostochnoi i Yugo-Vostochnoi Azii)*, Moscow: Nauka, 1986, part 1, pp. 193-199.
- “On the calculation of areas in ancient China” (O vychislenii ploshchadeï v drevnem Kitae, in Russian). *Studies in History of Mathematics (Istoriko-matematicheskie issledovaniya)*, Moscow: Nauka, vol. 29 (1985), pp. 28-43.

Proceedings of International Conferences

- “Infinitesimal procedures in modern and medieval mathematics textbooks.” In Alatorre, S., Cortina, J.L., Sáiz, M., & Méndez, A. (Eds.). (2006). *Proceedings of the Twenty Eighth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Mérida, Mexico: Universidad Pedagógica Nacional, vol. 2, pp. 519-520. [With V. Freiman].
- “Fractions and ... Fractions Again?! A Comparative Analysis of the Presentation of Common Fractions in the Textbooks Belonging to Different Didactical Traditions”. (co-authored with V. Freiman). ICME-10, Discussion Group 14, Copenhagen, Denmark, 4-11 July 2004, <http://www.icme-organisers.dk/dg14/DG14-Viktor.pdf>.

- “History of ideas or history of textbooks: Mathematics and mathematics education in traditional China and Vietnam”. In: Wann-Sheng Horng et al. (eds.), *Proceedings of Asia-Pacific HPM 2004 Conference: History, culture, and mathematics education in the new technology era*, May 24-28, 2004, Department of Mathematics Education, National Taichung Teachers College, Taichung, Taiwan, 2004, pp. 57-80.
- “Zhao Youqin (1271-1335?) on the Center of the Earth”. In the *Proceedings of the XXIst International Congress of History of Science* (Mexico, July 7-14, 2001), a CD-ROM publication, Mexico: 2005.
- “Public Understanding of Science' in Historical Perspective: The Case of Mathematical Sciences in Traditional China”. *Proceedings of the 2002 Conference on the History of Science and of Sino-Australian Symposium The Public Understanding of Science, Technology and Medicine* (Taibei-Hsinchu, Taiwan, April 2002), Taibei: Academia Sinica (Taiwan) and Hsinchu: Tsinghua University, 2002, pp. 191-213.
- “From Numerology to Arithmetic: the Early Chinese Counting Devices”. In: Zhang Jiafeng and Liu Juncan (eds.), *Proceedings of the 1999 Conference on the History of Science (Taipei, Republic of China)*, Taibei: Academia Sinica, 2000, pp. 29-69.

Entries in Encyclopedia, Dictionaries, and Bibliographies

- Volkov, A. (2005b). Zhao Youqin. *Encyclopædia Britannica*. Retrieved January 9, 2006, from Encyclopædia Britannica Premium Service. <http://www.britannica.com/eb/article?tocId=9394639>.
- Volkov, A. (2005c). Li Chunfeng. *Encyclopædia Britannica*. Retrieved January 9, 2006, from Encyclopædia Britannica Premium Service. <http://www.britannica.com/eb/article?tocId=9394626>
- Volkov, A. (2005d). Zu Chongzhi. *Encyclopædia Britannica*. Retrieved January 9, 2006, from Encyclopædia Britannica Premium Service. <http://www.britannica.com/eb/article?tocId=9384156>
- Volkov, A. (2005e). Zu Gengzhi. *Encyclopædia Britannica*. Retrieved January 9, 2006, from Encyclopædia Britannica Premium Service. <http://www.britannica.com/eb/article?tocId=9394642>
- Volkov, A. (2005f). Xu Yue. *Encyclopædia Britannica*. Retrieved January 9, 2006, from Encyclopædia Britannica Premium Service. <http://www.britannica.com/eb/article?tocId=9394637>
- Volkov, A. (2005g). Qin Jiushao. *Encyclopædia Britannica*. Retrieved January 9, 2006, from Encyclopædia Britannica Premium Service. <http://www.britannica.com/eb/article?tocId=9394634>

- “Le bacchette” (Counting rods). In: S.Petruccioli (gen. ed.), K.Chemla, F.Bray, D. Fu et al. (volume eds.), *Storia Della Scienza* (Encyclopedia on History of science, in Italian), vol. 2 (Cina, India, Americhe). Rome: Istituto della Enciclopedia Italiana, 2001, pp. 125-133.
- “L'abaco” (Abacus). In: S.Petruccioli (gen. ed.), K.Chemla, F.Bray, D. Fu et al. (volume eds.), *Storia Della Scienza* (Encyclopedia on History of science, in Italian), vol. 2 (Cina, India, Americhe). Rome: Istituto della Enciclopedia Italiana, 2001, pp. 481-485.
- “Li Chunfeng”. In: S.Petruccioli (gen. ed.), K.Chemla, F.Bray, D. Fu et al. (volume eds.), *Storia Della Scienza* (Encyclopedia on History of science, in Italian), vol. 2 (Cina, India, Americhe). Rome: Istituto della Enciclopedia Italiana, 2001, p. 84.
- Section “History of Chinese Mathematics: A Critical Bibliography” (co-authored with J.W. Dauben, K. Chemla, and Y. Xu), in J.W.Dauben (ed.), A.C. Lewis (editor-in-chief), *The History of Mathematics from Antiquity to the Present: A Selective Bibliography. CD-ROM Edition*, Providence, RI, and London, England: American Mathematical Society and London Mathematical Society, 2000.
- “Counting rods”, in: R.Bud and D.J. Warner (eds.), *Instruments of Science: an Historical Encyclopedia*. London & New York: Garland, 1998, pp. 155-156.

Reviews, introductions, popularization articles

- “On books baked in oven and counting with chopsticks.” *Calliope*, 2007, no. 2, pp. 14-18.
- « Mémorisation ou raisonnement ? » [[Mathematics didactics in traditional China and Vietnam:] memorisation or reasoning?] *Les genies de la science* (special issue of the *Pour la Science*), Paris : Belin, November 2005, pp. 24-27.
- “Yabuuti Kiyosi. *Une histoire des mathématiques chinoises*. (Belin, 2000).” In *East Asian Science, Technology, and Medicine*, vol 18 (2001), pp. 142-148.
- “Lam Lay-Yong, Ang Tian-Se. *Fleeting Footsteps*.” *Archives Internationales d'Histoire des Sciences*, vol. 46 (1996), no. 136, pp. 155-159.
- “Nombres et nombres” (introduction to a collection of papers). In: A.Volkov (éd.), *Sous les nombres, le monde. (Extrême-Orient Extrême-Occident, no. 16)*, Paris: PUV, 1994, pp. 5-11.

Proceedings of National Conferences

- “Algorithmical character of ancient Chinese mathematical texts” (Algoritmicheskii kharakter drevnekitaïskikh matematicheskikh tekstov, in Russian). *XXIth Soviet Congress of sinologists “State and Society in China”* (21ya Nauchnaya Konferentsiya “Gosudarstvo i Obshchestvo v Kitae”), Proceedings. Moscow: Nauka (SSC below), 1990, part 1, pp. 51-54.

- “On the infinitesimal method of calculation the volume of a pyramid” (Ob infinitezimal'nom metode vychisleniya ob'ema piramidy, in Russian). *XIX SSC*, 1988, part 1, pp. 143-146.
- “On the method of analogy in ancient Chinese mathematics” (O metode analogii v drevnekitaïskoï matematike, in Russian). *XVIII SSC*, 1987, part 1, pp. 113-117.
- “On the structure of the treatise *Hai dao suan jing*” (O strukture traktata *Khāi dao suan tszin*, in Russian). *XVII SSC*, 1986, part 1, pp. 96-99.
- “Preliminary results of quantitative analysis of ancient Chinese standard vessels” (Predvaritel'nye rezultaty kolichestvennogo analiza drevnekitaïskikh etalonnykh sosudov, in Russian). *XVI SSC*, 1985, part 1, pp. 145-150.
- “On one ancient Chinese mathematical term” (Ob odnom drevnekitaïskom matematicheskom termine, in Russian). In: S.V. Volkov (ed.), *Workshop of post-graduate students and junior research fellows of the Institute of Oriental Studies of the Academy of Sciences of USSR. Abstracts* (Shkola aspirantov i molodykh nauchnykh sotrudnikov Instituta Vostokovedeniya AN SSSR. Tezisy dokladov.) Moscow: Nauka, 1985, vol. 1, part 1, pp. 18-22.
- “Proof in ancient Chinese mathematics” (Dokazatel'stvo v drevnekitaïskoï matematike, in Russian). *Methodological problems of development and of applications of mathematics* (Metodologicheskie problemy razvitiya i primeneniya matematiki). Moscow: Academy of Sciences, 1985, pp. 200-206.
- “On the characteristics of Chinese mathematics of Han-Tang period” (O kharaktere drevnekitaïskoï matematiki perioda Khan'-Tan, in Russian). In: S.V. Volkov (ed.), *Third Workshop of Young Orientalists* (Tret'ya Vsesoyuznaya Shkola Molodykh Vostokovedov), *Abstracts*. Moscow: Nauka, 1984, vol. 1, pp. 24-25.
- “On proof in ancient Chinese mathematics” (O dokazatel'stve v drevnekitaïskoï matematike, in Russian). *XVth SSC*, 1984, part 1, pp. 101-104.

Dissertation and related publications

- Mathematics in ancient China during 3rd - 7th centuries A.D.* (Matematika v drevnem Kitae III-VII vv., in Russian). A thesis submitted for the Ph.D. degree in Physics and Mathematics. Moscow: Academy of Sciences of USSR, 1988, 323 pp. Defended 18.05.1989. (Unpublished).
- Mathematics in ancient China during 3rd - 7th centuries A.D.* (Matematika v drevnem Kitae III-VII vv., in Russian). Abstract of the PhD dissertation (preprint). Moscow: Academy of Sciences of USSR, 1989, 27 pp.
- “Dissertation on *Matematika v drevnem Kitae (3-7 vv.)* (*Mathematics in ancient China during the 3rd-7th centuries A.D.*)” *Historia Mathematica* 18 (1991), pp. 125-127.

PANELS AND SYMPOSIA

“Visual Representations in Pre-Modern and Non-Western Science and Technology: When Traditions Meet” (co-organized with Huang Yi-Long, Hsu Kuang-Tai, Mau Chuan-Hui), an International Conference, National Tsing Hua University, Hsinchu, Taiwan, December 12-13 (18 papers).

“Visual Representations in Science and Pseudo-Science in Pre-Modern and Non-Western Cultures” (co-organized with V. Dorofeeva-Lichtmann), a Symposium organized at the 23rd International Congress on History of Science, Budapest, Hungary, July 28-August 02, 2009 (12 papers).

Co-organizer of the Panel “Science across the border” at the 12th International Conference on the History of Science and Technology in East Asia (Baltimore, July 14-18, 2008).

Co-organizer of the Symposium “Ten Classics of Ancient Chinese Mathematics” (with J. Dauben and Guo Shuchun) at the 22nd International Congress of the History of Science, Beijing, July 25, 2005 (16 papers and one introductory lecture).

Co-organizer of the Section on History of Mathematics, Canadian Mathematics Society Annual Meeting, Montréal, December 2004.

Member of Organizing Committee, The 5th International Symposium on the History of Mathematics and Mathematical Education Using Chinese Characters (9-12 August 2002, Tianjin, PR of China).

Co-organizer of the panel “Typological Parallels in Pre-modern Sciences” at the 21st International Congress of History of Science (Mexico-city, Mexico, July 7-14, 2001).

Co-organizer of the panel “New Topics in the History of Science in East Asia – Preliminary Research on Vietnamese Scientific Tradition”, at the 9th International Conference on the History of Science in East Asia, Singapore (August 1999).

PAPERS DELIVERED AT INTERNATIONAL CONFERENCES (selection)

“Reception of Western mathematical diagrams in the 17th century China”, at the International Conference “Visual Representations in Pre-Modern and Non-Western Science and Technology: When Traditions Meet”, National Tsing Hua University, Hsinchu, Taiwan, December 12-13, 2009.

“Lost in translation: Understanding of mathematical terms by Chinese-speaking schoolchildren”, a poster presentation at International Conference of East-Asian Science Education, Taipei, October 21-23, 2009 (co-authored with Bess Chern Jen-Jiun).

“Talismans and diagrams in the manuscripts of the minority nationalities of Northern Vietnam.” At the 23rd International Congress on History of Science, Budapest, Hungary, July 28-August 02, 2009.

- “Mathematical education and textbooks in Russia and USSR”, at the International Workshop on the Popularization of Mathematics (數學普及書籍閱讀國際研討會), National Taiwan Normal University, Taipei, February 15, 2009.
- “Didactical dimensions of mathematical problems: ‘weighted distribution’ in a Vietnamese mathematical treatise”. Paper read *in absentia* at the International Workshop « Textes et instruments scientifiques anciens élaborés dans un contexte d'enseignement: situations, usages, fonctions » [Ancient scientific texts and instruments developed in the context of education : situations, use, functions], Paris, France, December 15-16, 2008.
- “Jesuits in Vietnam: Evangelisation, science, and politics.” International Conference “History of Mathematical Sciences: Portugal and East Asia IV. Portuguese Missionaries in late Ming and early Qing China: The Sciences and the Arts.” Beijing, China, November 6-8, 2008.
- “History of the Soviet Atomic Bomb Project: Recent Publications”, at the International Workshop on the History of Nuclear Physics, National Tsing-Hua University, October 31, 2008.
- “Vietnamese mathematics and mathematics education: adaptation or invention?”, the International Conference on History of Mathematics in Memory of Seki Takakazu (1642-1708). Tokyo, Japan, August 25-31, 2008.
- “A Case of Transmission of Mathematical Expertise: Mathematics and Mathematics Education in Traditional Vietnam”, the 12th International Conference on the History of Science and Technology in East Asia (Baltimore, MD, USA, July 14-18, 2008).
- “‘First generation’ Historians of Chinese Mathematics in USSR/Russia”, the 12th International Conference on the History of Science and Technology in East Asia (Baltimore, MD, USA, July 14-18, 2008).
- “Eastern roots and Western branches? Mathematics education in pre-colonial and early colonial Vietnam.” International workshop “Meeting and Mutual Impact of Civilizations: East and West -2007”, Tsing-Hua University, Hsinchu, Taiwan, November 13-14, 2007.
- “Western geometrical objects in China: the diagrams of the Chinese translation of the Elements”, International Symposium in Memoriam of Quarter-Centenary of the Chinese Translation of the Elements by Matteo Ricci and Xu Guangqi, Academia Sinica, Taipei, Taiwan, November 10-11, 2007.
- “La cartographie au Viêt-nam durant la période précoloniale et au début de la période coloniale” [Pre-colonial and early colonial cartography in Vietnam], 22nd International congress on the History of Cartography (Bern, Switzerland, 2007, July 8-13). [With Doan Thi Thu Huong].
- “A preliminary analysis of the multiplication tables in the *Suan shu shu*.” International symposium on the *Suan shu shu*: appraisals and appreciations (National Taiwan Normal University, Taipei, August 23-25, 2006).
- “Comment commenter les commentaires?” International colloquium devoted to the publication of the French translation of the *Jiu zhang suan shu* by K. Chemla and Guo Shuchun (Paris, France), June 2006.
- “The language of Vietnamese mathematical treatises: between Han and Nom.” Second International Conference on Nom language. Hue, Vietnam, June 2006.

- “Mathematics and Science Education in the Context of Globalization. Globalization, episode I: French colonial mathematics education in traditional Vietnam.” Comparative and International Education Society (West) Annual Conference, University of British Columbia, Vancouver, Canada, September – October 2005.
- “Mathematics and mathematics education in Traditional and Colonial Vietnam,” 6th International Symposium on the History of Mathematics and Mathematical Education Using Chinese Characters, Tokyo, Japan, August 4-7, 2005.
- “*Ten Classics* and Mathematics Education in Traditional China,” Symposium “Ten Classics of Ancient Chinese Mathematics,” 22th International Congress of the History of Science, Beijing, PR of China, July 24-31, 2005.
- “Transmission of scientific knowledge: conventional picture and overtones. The case of Chinese and Western mathematics education in traditional Vietnam.” International conference “The Transmission, Education and Changes of Traditional Science and Technology (Natural Knowledge) in East Asia” , Center for the Study of East Asian Civilizations, Taiwan National University, Taipei, July 21-22, 2005.
- “Mathematics and mathematics education in Confucian context: the cases of China and Vietnam.” International Conference on Confucianism in Vietnam, Hanoi, Vietnam, December 17-18, 2004.
- “History of Traditional Vietnamese Mathematics: the State of the Field.” Canadian Mathematical Society Annual Meeting, December 2004, Montréal, Canada.
- “History of ideas or history of textbooks: Mathematics and mathematics education in traditional China and Vietnam”. A Plenary Lecture at the Asia-Pacific HPM 2004 Conference: “History, culture, and mathematics education in the new technology era”, Taichung, Taiwan, May 24-28, 2004.
- “Traditional Vietnamese mathematics: The case of Luong The Vinh (1441-1496?) and his treatise *Toan phap dai thanh* (Great Compendium of Mathematical Methods)”. International Conference "Traditions of Knowledge in South-East Asia", Yangon, Myanmar/Burma, December 2003.
- “A case study in the history of traditional Vietnamese medicine: Nguyen Truc 阮直 (1417-1473) and his treatise on pediatrics *Bao Anh Luong Phap* 保嬰良法 (Auspicious Prescriptions for Protection of Children)”, co-authored with Nguyen Thi Duong. International Conference "Traditions of Knowledge in South-East Asia", Yangon, Myanmar/Burma, December 2003.
- “Human knowledge and the Age of Computers”, lecture at the Conference devoted to the completion of the project “Euro-Asian Knowledge Village”, Hanoi, Vietnam, August 2003.
- “Calculating π in China: Decimal Approximations and the Notion of Number in Traditional Chinese Mathematics”, invited lecture at the International Symposium on History of Chinese Mathematics, August 27, 2002, Beijing, P.R. of China.
- “Luong The Vinh (1441-?) and His Mathematical Work”, the 10th International Conference on the History of Science in East Asia, August 20-24, 2002, Shanghai, P.R. of China.

- "Problems and Their Solutions: The Ways of Organizing Mathematical Knowledge in Traditional Chinese and Vietnamese Mathematics", International Colloquium on the History of Mathematics, a Satellite Conference of the ICM-2002, August 14-18, 2002, Xi'an, P.R. of China.
- "Traditional Vietnamese Mathematics: An Introduction". A plenary lecture at the 5th International Symposium on the History of Mathematics and Mathematical Education Using Chinese Characters, 9-12 August, 2002, Tianjin, P.R. of China.
- "Demonstration in Chinese Mathematics: Argumentation for State Examinations". A paper delivered at the International Colloquium "*Histoire et historiographie de la démonstration mathématique dans les traditions anciennes* (History and Historiography of Mathematical Proof in Ancient Traditions). Paris, France, May 17-19, 2002.
- "Public Understanding of Science' From a Historical Perspective", Sino-Australian Symposium *The Public Understanding of Science, Technology and Medicine*, Hsinchu, Taiwan, April 2002.
- "Drawing one corner of a square: diagrams in traditional Chinese mathematics", International Conference "From Image to Action: The Dynamics of Visual Representation in Chinese Intellectual and Religious Culture", Paris, France, September 3-5, 2001.
- "Chinese Cosmography of the 14th century: in the Search of the Center of the World", the 21st International Congress of History of Science, Mexico-city, Mexico, July 7-14, 2001.
- "Vietnamese mathematics: A Successful Transplant?", the 21st International Congress of History of Science, Mexico-city, Mexico, July 7-14, 2001.
- "An example of Daoist science: Cosmography of Zhao Youqin (1271-1335?)", 36th International Congress of Asian and North African Studies, Montréal, QC, Canada, August 27-September 2, 2000.
- "Astronomical Data in a Daoist Treatise: Chen Zhixu's commentary on the *Scripture of Salvation (Duren jing)*". International Conference "Chinese religion and Chinese society" Hong Kong, May-June 2000.
- "Horses, Lambs, and Elephants: an Unknown "Hundred Fowls" Problem from a Medieval Vietnamese Treatise", International Conference "2000 years of Transmission of Mathematical Ideas: Exchange and Influence from Late Babylonian Mathematics to Early Renaissance Science", Bellagio, Italy, May 8-12, 2000.
- "A preliminary study of the medieval Vietnamese mathematical treatise *Toan phap dai thanh*", the Ninth International Conference on the History of Science in East Asia, Singapore, August 1999.
- "Official curriculum in traditional Chinese mathematics: How did candidates pass the examinations?" (co-authored with Siu Man-Keung), International Colloquium "Transmission and Transformation of Mathematical Thought: A Comparative Approach", Central China Normal University, Wuhan, P.R. of China, October 1998.
- "Calculation of areas and volumes in medieval Chinese mathematics", the 20th International Congress on the History of Science, Liège, Belgium, August 1997.

- “Reading Some Geometric Problems from Qin Jiushao's *Shushu jiuzhang*” (co-authored with Catherine Jami and Joël Brenier), the Eighth International Conference on the History of Science in East Asia, Seoul, S.Korea, August 1996.
- “Zhao Youqin and his mathematical activity”, the Eighth International Conference on the History of Science in East Asia, Seoul, S.Korea, August 1996.
- “Terminologie mathématique ou philosophique ? Le cas du commentaire de Liu Hui sur le *Jiuzhang suanshu*”, International Workshop “La pensée et la philosophie chinoise”, Paris, France, June 1994.
- “A tentative quantitative analysis of ancient Chinese standard measuring vessels”, the Seventh International Conference on the History of Science in East Asia, Kyoto, Japan, August 1993.
- “Calculation of π in ancient China: from Liu Hui to Zu Chongzhi”, the 19th International Congress on the History of Science, Zaragoza, Spain, August 1993.
- “On the transformation of objects in ancient Chinese mathematics”, Congress of the European Association of the Chinese Studies, Paris, France, June 1992.

FELLOWSHIPS AND GRANTS

- “Leading Edge Research Foundation” (National Tsing Hua University, Taiwan) 5-year grant (2006-2010), co-PI;
- Three-year Research Grant for the project “Traditional Chinese Science Among the Vietnamese Minorities” from the National Science Council (Taiwan), 2007-2010, PI;
- One-year Research Grant for the project “Traditional sciences in pre-modern Vietnam: A preliminary investigation of the extant sources” from the National Science Council (Taiwan), 2006-2007, PI;
- Three months visiting professorship (2004) and one month fellowship (2007) at the Institut National de Recherche Pédagogique (National Institute of Pedagogical Research), Paris, France;
- Three-year Research Grant from the the Social Sciences and Humanities Research Council of Canada (grant no. 410-2000-0450) (originally for years 2000-2003, extended to the fourth year), PI;
- Three-year Post-Doctoral Fellowship, Department of mathematics, the University of Hong Kong (1996-1999);
- Research grant from the Pacific Cultural Foundation (Taiwan, 1995);
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- Two-year Post-doctoral Fellowship for European Scholars, from the Chiang Ching-Kuo Foundation for International Scholarly Exchange, (Republic of China, Taiwan) (1992-1994);

- 9 months Post-doctoral *Bourse Diderot* Fellowship, from the *Maison des Sciences de l'Homme* Foundation, Paris, France (1990-1991);
- Travel and conference grants in 1993-2008 from Université du Québec à Montréal, CNRS (France), the University of Hong Kong, Academia Sinica (Taiwan), Rockefeller Foundation, Maison des Sciences de l'Homme (France), École française d'Extrême-Orient (France), and other foundations and institutions.

PROFESSIONAL MEMBERSHIPS

- International Society for the History of Science in East Asia: in 1990-1996 member and the National Treasurer-Secretary for USSR / Russia (together with V.Dorofeeva-Lichtmann); regular member (1996-present).
- European Association of Chinese Studies (1992-1996).
- French Association of Sinologists (1991-1997).
- National Committee for History of Science, Academia Sinica, Taiwan (September 2008-present).