

Department of History  
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### Research and Teaching Expertise

History of Modern Science and Society; Soviet and Russian History; Nuclear History and the Cold War

### Academic Employment

- Current Professor, Department of History, University of British Columbia, Vancouver, BC;  
Affiliated Research Fellow, S.I.Vavilov Institute for History of Science and Technology,  
Russian Academy of Sciences, Moscow.
- Previous Visiting Scholar, Max-Planck-Institute for History of Science, Berlin (2010-2011);  
Department of History, University of Georgia, Athens, GA (2000-2006);  
Associate Historian, Center for History of Physics, American Institute of Physics, College  
Park, MD (1997-2000);  
Postdoctoral Fellow, Division of Humanities and Social Sciences, California Institute of  
Technology, Pasadena, CA (1996-1997);  
Postdoctoral Fellow, Max-Planck-Institute for History of Science, Berlin (1995-1996);  
Alexander-von-Humboldt Fellow, Max-Planck-Institut für Physik, Munich (1991-1993);  
Research Associate, Institute for History of Science and Technology, Russian Academy of  
Sciences, Moscow (1990-2000).

### Education

- 1989 Ph.D. in history of science, Institute for History of Science and Technology, USSR Academy of  
Sciences, Moscow, USSR. Dissertation: *The Development of Quantum Electrodynamics, 1925-1932*  
1984 M.S. in physics, *summa cum laude*, Physics Department, Moscow State University, USSR

### Books and Edited Volumes

- Oxford Handbook of the History of Interpretations of Quantum Physics* (co-edited with Olival Freire,  
G.Bacciagaluppi, O.Darrigol, Th.Hartz, Ch.Joas, and O. Pessoa Jr. (Oxford University Press, 2022).
- The Copenhagen Network: The Birth of Quantum Mechanics from a Postdoctoral Perspective* (Berlin:  
Springer, 2020).
- (in Chinese) *Great Science in the Soviet Era* (Beijing: China Science and Technology Press, 2019).
- Weimar Culture and Quantum Mechanics: Selected Papers by Paul Forman and Contemporary  
Perspectives on the Forman Thesis*, co-edited with Cathryn Carson and Helmuth Trischler  
(London & Singapore: World Scientific Press, 2011).
- Stalin's Great Science: The Times and Adventures of Soviet Physicists* (London: Imperial College  
Press, 2004).
- Intelligentsia Science: The Russian Century, 1860-1960*, co-edited with Michael Gordin and Karl Hall,  
*Osiris*, vol. 23 (Chicago: University of Chicago Press, 2008).
- The Cultural Alchemy of the Exact Sciences* (co-edited with Cathryn Carson and Helmuth Trischler),  
special issue of *Berichte zur Wissenschaftsgeschichte* 31 (2008) No. 4.

*Science in Russian Contexts* (guest editor), special issue of *Science in Context* (2002), vol 15, No. 2.  
*Paul Dirac and Igor Tamm. Correspondence. Part I: 1928-1933; Part II: 1933-1936* (München: Max-Planck-Institut für Physik, 1993-1996).  
(in Russian) *Rockefeller Philanthropies and Soviet Science* (St. Petersburg-Moscow: MFIN, 1993).  
(in Russian) *Paul Dirac and Physics of the Twentieth Century*, co-edited with B. V. Medvedev (Moscow: Nauka, 1990).

## Articles

(in press, with Kirill Rossiiianov) “Abortions, Eugenics, and Artificial Reproduction in Soviet Russia, 1920-1936,” for *Gouverner les Sciences et les Techniques, Gouverner par les Sciences et les Techniques: Quels Enjeux pour les Femmes? (fin XIX siècle – début XXI siècle)*. (Paris, Berghahn).  
(in press) “Space-Time, Death-Resurrection, and the Russian Revolution,” in *Science and Technology in Russia’s Great War and Revolution, 1914-1922*, edited by Anthony Heywood and Scott Palmer (Bloomington: Indiana University Press, 2022).  
“Quantum Historiography and Cultural History: Revisiting the Forman Thesis,” in *Oxford Handbook of the History of Interpretations of Quantum Physics* (Oxford University Press, 2022), 887-908.  
(in Russian) “Niels Bohr, Rockefeller Postdocs, and the Creation of Quantum Mechanics,” *Stimul* (October 2021) <https://stimul.online/articles/science-and-technology/nils-bor-rokfellerovskie-postdoki-i-rozhdenie-kvantovoy-mekhaniki/>  
(with Alexandre Bagdonas) “Funny Origins of the Big Bang Theory,” *Historical Studies in the Natural Sciences* (2021) 51: 87-137.  
(with Climério Paulo da Silva Neto) “Convergence in Cold War Physics: Coinventing the Maser in the Postwar Soviet Union,” *Berichte zur Wissenschaftsgeschichte* (2019) 42: 375-399.  
(in Russian) “The Cultural Materiel of the Big Bang Theory,” *Stimul* (September 2019) <https://stimul.online/articles/science-and-technology/kulturnaya-sreda-teorii-bolshogo-vzryva/>  
“The Phenomenon of Soviet Science,” *Osiris: A Research Journal Devoted to the History of Science and its Cultural Influences* (2008) 23: 115-135. Also in Turkish *Historia 1923* (2018) 4: 298-322.  
(in Russian) “Meritocracy, Technocracy, Revolution: The Moments of Engineering Power,” *Stimul* (November 2017). <https://stimul.online/articles/interview/meritokratiya-tekhokratiya-revoljutsiya/>  
“Science as Co-Producer of Soviet Polity,” *Historia Scientiarum: International Journal of the History of Science Society of Japan* (2013) 22: 161-180; Also in Japanese in *The General Staff of Science*, edited by Hiroshi Ichikawa (Sapporo: Hokkaido University Press, 2016), 125-155.  
(in Spanish) “La investigación soviética durante la Guerra Fría,” *Investigación y ciencia* (2014), Número 451: 40-46; (also in German) “Sowjetische Forschung im Kalten Krieg,” *Spektrum der Wissenschaft* (2012), # 6: 66-73.  
“Probability, Marxism, and Quantum Ensembles,” *Jahrbuch für Europäische Wissenskulturr / Yearbook for European Culture of Science* (2012) 6: 211-235.  
“Meeting the Demands of Reason: The Life and Thought of Andrei Sakharov” (essay review), *Kritika: Explorations in Russian and Eurasian History* (2012) 13: 243-250.  
(in Portuguese) “A grande ciência de Stalin: tempos e aventuras de físicos soviéticos no exemplo da biografia política de Lev Landau,” *Revista Brasileira de História da Ciência* (2011) 4, # 1: 6-15.

- The Cultural Spaces of the Soviet Cosmos,” in *Into the Cosmos: Space Exploration and Soviet Culture*, edited by James T. Andrews and Asif A. Siddiqi (Pittsburgh: University of Pittsburgh Press, 2011), 15-27 and 266-268.
- (in German) “Die Mobilmachung der sowjetischen Wissenschaft,” in *Macht und Geist im Kalten Krieg*, ed. Bernd Greiner, Tim Müller, and Claudia Weber (Hamburg: Hamburger Edition, 2011), 87-107.
- “Philosophical Rhetoric in Early Quantum Mechanics, 1925-1927: High Principles, Cultural Values, and Professional Anxieties,” in *Weimar Culture and Quantum Mechanics: Contemporary Perspectives on the Forman Thesis* (London & Singapore: World Scientific, 2011), 319-348.
- (in German, with Helmuth Trischler and Cathryn Carson) “Beyond Weimar Culture – Die Bedeutung der Forman-These für eine Wissenschaftsgeschichte in kulturhistorischer Perspektive,” *Berichte zur Wissenschaftsgeschichte* (2008) 31: 305-310.
- “Russian Science: The Little Ball Made Science Bigger,” *Nature* (2007) vol. 449: 552.
- (in Italian) “Scienza,” in *Dizionario del Comunismo nel XX secolo*, edited by Silvio Pons and Robert Service (Torino: Giulio Einaudi, 2007), 382-386.
- “Bohm, David,” “Dirac, Paul Adrien Maurice,” “Ehrenfest, Paul,” “Jordan, Pascual,” “Kapitsa, Pyotr Leonidovich,” “Landau, Lev Davidovich,” and 10 more entries in *Encyclopaedia Britannica* (2006-2007) <https://www.britannica.com/contributor/Alexei-Kojevnikov/4641>
- “The Making of the Soviet Bomb and the Shaping of Cold War Science” in *Reappraising Oppenheimer: Centennial Studies and Reflections*, edited by Cathryn Carson and David A. Hollinger (Berkeley: University of California Press, 2005), 129-145.
- (with Richard Beyler and Jessica Wang) “Purges in Comparative Perspective: Rules for Exclusion and Inclusion in the Scientific Community under Political Pressure,” *Osiris* (2005) 20: 23-48.
- (in Italian) “Rivolgimenti sociali e politiche della scienza,” and “Manovre della guerra fredda,” Ch. LVII and Ch. LXXI in *Storia della Scienza* (Roma: Istituto della Enciclopedia Italiana, Fondata da Giovanni Treccani 2004), vol. 8: 472-477, 576-583, 936-940.
- “Introduction: A New History of Russian Science,” *Science in Context* (2002) 15: 177-182.
- “Lev Landau, Physicist and Revolutionary,” *Physics World* (2002) 15, # 6: 35-39; (also in Polish) “Lew Landau: Fizyk i Rewolucjonista,” *Postepy Fizyki* (2003) 54: 206-212.
- “David Bohm and Collective Movement,” *Historical Studies in the Physical and Biological Sciences*, (2002) 33: 161-192.
- “The Last Century of Physics” (essay review), *Annals of Science* (2002) 59: 419-422.
- “The Great War, the Russian Civil War, and the Invention of Big Science,” *Science in Context* (2002) 15: 239-275.
- “President of Stalin’s Academy: Mask and Responsibility of Sergei Vavilov,” *Isis* (1996) 87: 18-50.
- “Einstein’s Fluctuation Formula and the Wave-Particle Duality,” *Einstein Studies* (2002) 10: 181-228.
- “Dirac’s Quantum Electrodynamics,” *Einstein Studies* (2002) 10: 229-259.
- (in German) “Dialogue über Macht und Wissen,” in *Im Dschungel der Macht. Intellektuelle Professionen unter Stalin und Hitler*, edited by Dietrich Beyrau (Göttingen, 2000), 45-64.
- “Games of Stalinist Democracy: Ideological Discussions in Soviet Sciences, 1947-52,” in *Stalinism: New Directions (Rewriting Histories)*, ed. Sheila Fitzpatrick (London: Routledge, 2000), 142-175.

- “Freedom, Collectivism, and Quasiparticles: Social Metaphors in Quantum Physics,” *Historical Studies in the Physical and Biological Sciences* (1999) 29: 295-331.
- “Dialogues about Knowledge and Power in Totalitarian Political Culture,” *Historical Studies in the Physical and Biological Sciences* (1999) 30: 227-247.
- (in Russian, with Gennady E. Gorelik) “What Saved Soviet Physics from Lysenkoism? A Dialogue,” *Priroda* (1999) No. 5: 95-104.
- “Toward a Post-Cold War Historiography,” *The Russian Review* (1998) 57: 455-459.
- “Rituals of Stalinist Culture at Work: Science and the Games of Intraparty Democracy circa 1948,” *The Russian Review* (1998) 57: 25-52.
- (in Russian, with Tatiana B. Romanovskaia) “Quantum Theory, 1900-1927,” in *Fizika XIX i XX vv.*, edited by Grigory M. Idlis, vol. 2 (Moscow: Yanus-K, 1997), 56-85.
- (in German) “Zwischen Ruhm und Verfolgung: Pjotr Leonidowitsch Kapitza (1894-1984), Lev Davidowitsch Landau (1908-1968),” *Kultur & Technik* (1997) No. 1: 50-57.
- (in German, with Stanley Goldberg, Dieter Hoffmann, Helmut Rechenberg, and Fritz Krafft) “Die erste Kernwaffendetonation am 16. Juli 1945 in Alamogordo, New Mexico - Vorgeschichte, Ereignis, Wirkungen,” *Berichte zur Wissenschaftsgeschichte* (1996) 19: 157-182.
- “Light Quanta and Waves: Einstein’s Reputation as a Dualist” in *La Découverte des Ondes de Matière* (Paris: Technique & Documentation – Lavoisier, 1994), 11-23.
- “On the Barricades,” in *Russia at the Barricades. Eyewitness Accounts of the August 1991 Coup*, eds. Victoria E. Bonnell, Ann Cooper, and Gregory Freidin (Armonk: M. E. Sharpe, 1994), 263-266.
- (in Russian) “The German Uranium Project in the Light of Farm Hall Transcripts,” *Voprosy Istorii Estestvoznaniia i Tekhniki* (1994) No. 3: 165-168.
- (in Russian) “On Proletarian, Marxist, and Bolshevik Science,” in *Metafizika i Ideologija v Istorii Estestvoznaniia*, edited by Alexander A. Pechenkin (Moscow: Nauka, 1994), 219-238.
- (in Russian, with Andrey V. Andreev and Boris E. Yavelov) “The Copenhagen Mission of Soviet Intelligence,” *Voprosy Istorii Estestvoznaniia i Tekhniki* (1994) No. 2: 18-44.
- “Piotr Kapitza and Stalin’s Government: A Study in Moral Choice,” *Historical Studies in the Physical and Biological Sciences* (1991) 22: 131-164.
- (in Russian, with Anna G. Petrosova) “Scientific Periodicals in the USSR (1917-1949): A Quantitative Study,” *Voprosy Istorii Estestvoznaniia i Tekhniki* (1991) No. 4: 44-50.
- (in Russian) “Sixty Years of Quantum Field Theory: the Heisenberg-Pauli Theory,” in *Yubilei Nauki*, ed. Yury B. Khramov (Kiev: Naukova Dumka, 1990), 165-181.
- (with Olga I. Novik) “Analysis of Informational Ties in Early Quantum Mechanics (1925-1927),” *Acta Historiae Rerum Naturalium necnon Technicarum* (Prague, 1989) Special Issue 20: 115-159.
- (in Russian) “V. A. Fock and the Method of Second Quantization,” in *Issledovaniia po Istorii Fiziki i Mekhaniki, 1988* (Moscow: Nauka, 1988), 113-138.
- (in Russian) “Dirac and the Quantum Theory of Radiation,” *Einsteinovski Sbornik 1984-1985* (Moscow: Nauka, 1988), 246-270.
- (in Russian) “The Speed of Publications and its Role in the Development of a Scientific Theory (the Case of Quantum Mechanics),” *Voprosy Istorii Estestvoznaniia i Tekhniki* (1987) # 2: 86-91.

(in Russian) “Mossotti’s Hypothesis in Nineteenth-Century Theories of Gravitation,” in *Proceedings of the 27<sup>th</sup> Annual Conference. Section on the History of Physics and Mechanics 1984* (Moscow: IET AN SSSR, 1987), 52-59.

(in Russian) “Faraday and Maxwell on Gravity,” in *Istoriia i Metodologiia Estestvennykh Nauk* (Moscow: Moscow University Press, 1985), Vyp. 31 *Fizika*: 129-134.

#### **40 Book Reviews in:**

*American Historical Review, American Journal of Physics, Annals of Science, Endeavour, Historical Studies in the Physical and Biological Sciences, H-Russia, Isis, Kritika, Journal of Modern History, Nuncius, Physics Today, Physics World, Physikalische Blätter, Russian History/Histoire Russe, The Russian Review, Science, Slavic Review, Voprosy Istorii Estestvoznaniia i Tekhniki.*

#### **Oral History Interviews (full texts online):**

Philip W. Anderson <https://www.aip.org/history-programs/niels-bohr-library/oral-histories/23362-1>

Kenneth Ford <https://www.aip.org/history-programs/niels-bohr-library/oral-histories/24701-1>

W. Conyers Herring <https://www.aip.org/history-programs/niels-bohr-library/oral-histories/23809>

Basil Hiley <https://www.aip.org/history-programs/niels-bohr-library/oral-histories/31624>

Melba Phillips <https://www.aip.org/history-programs/niels-bohr-library/oral-histories/32719>

Sam Schweber <https://www.aip.org/history-programs/niels-bohr-library/oral-histories/31884>

Oral History Interviews with Alexander I. Akhiezer, Grigory I. Barenblatt, Igor E. Dzyaloshinsky, Mikhail A. Elyashevich, Isai I. Gurevich, Moisey I. Kaganov, Oleg N. Krokhin, Douglas Osheroff, Rudolf Peierls, Leonid Pyatigorsky, Dmitry D. Riutov, Roald Z. Sagdeev, Dmitry V. Shirkov, Leon S. Theremin, Mordechai Vanunu. (in English and in Russian, the majority archived in the Niels Bohr Library and Archive, Center for History of Physics, American Institute of Physics, College Park, MD).

#### **Grants, Awards, Fellowships**

New York University, The Jordan Center Visiting Fellowship, 2017

Uses and Abuses of Biology Grants Programme, The Faraday Institute, Cambridge, UK, 2012-2015

SSHRC Canada, Connection Grant, 2012-2013

SSHRC Canada, Standard Research Grant, 2011-2015

Hampton Fund Research Grant, 2010-2011

Alexander-von-Humboldt Foundation, Germany, Trans-Coop Grant, 2006-2008

National Science Foundation, Science and Technology Studies Program, Conference Grant, 2006-2007

Senior Research Fellowship, Dibner Institute for History of Science, MIT (2005)

Kennan Institute for Advanced Russian Studies, Conference Grant, 2004

National Science Foundation, Program: Science and Technology Studies, Research Grant, 2000-2004

Junior Faculty Development Fellowship, USIA, 1994-1995

Alexander-von-Humboldt Postdoctoral Fellowship, Germany, 1991-1993

Academic Council, Institute for History of Science and Technology, Moscow. Prize for editing the volume *Paul Dirac and Physics of the 20th Century* (1990)

### **Invited and Keynote Talks (selected, since 2010)**

- “Mr. Tompkins and the Funny Origins of the Big Bang Theory,” Science+ Group (November 2021)
- “Lenin and ‘Bourgeois Specialists’: Proletarian Revolution and Revolution in Sciences,” Online Workshop “Lenin Techno-Party,” Tyumen State University, Tyumen, Russia (April 2020)
- “Sobral, 1919, and the International Meanings of Einstein’s Relativity,” Universidade Federal da Bahia – Universidade Estadual de Feira de Santana, Salvador da Bahia, Brazil (December 2019)
- (keynote speaker) “The Forman Thesis Revisited – Weimar Culture and Quantum Mechanics,” Workshop “Fundamentos e Interpretações da Mecânica Quântica: Aspectos Históricos e Conceituais,” Salvador da Bahia, Brazil (December 2019)
- (invited speaker) “Universe in Upheaval: Relativistic Cosmology in the Context of the Russian Revolution,” Conference “The Production of Knowledge in the USSR,” University of Chicago, Chicago, IL, USA (June 2019)
- “The Copenhagen Network, Postdoctoral Revolt, and the Invention of Quantum Mechanics,” Department of Chemistry, UBC, Vancouver (February 2019)
- “Cultural Material of the Big Bang Theory: Space-Time, Death-Resurrection, and the Russian Revolution,” Institute on Theoretical Humanities, Moscow, Russia (June 2018)
- (invited speaker) “More is Different,” or the “Transition from Quantity to Quality,” American Physical Society Meeting, Los Angeles, CA, USA (March 2018)
- “Universe in Upheaval: Relativistic Cosmology in the Context of the Russian Revolution,” Université Paris 7 – Diderot, Paris, France (December 2017)
- “Space-Time, Death-Resurrection, and the Russian Revolution,” Jordan Center for the Advanced Study of Russia, New York University, New York, NY, USA (November 2017)
- “Quantum Revolution and the Rise of Soviet Theoretical Physics,” Laboratory of High Energy Physics, Joint Institute for Nuclear Research, Dubna, Russia (June 2017)
- “Space-Time, Death-Resurrection, and the Russian Revolution,” Princeton Institute for International and Regional Studies, Princeton University, NJ, USA (February 2017)
- (invited speaker) “The Cultural Spaces of the Soviet Cosmos,” Russian American Scientific Association, 7<sup>th</sup> Annual Meeting, UCLA, Los Angeles, CA, USA (November 2016)
- “Relativistic Cosmology in the Context of the Russian Revolution,” Conference “Ways of Viewing Science and Society,” Netherlands Academy of Arts and Science, Amsterdam (June 2016)
- “Science, Society, and Culture: The Legacy of 20<sup>th</sup>-Century Ideological Debates,” Departamento de Sociologia, Universidad Autónoma Metropolitana, Mexico-City (May 2016)
- “Space-Time and the Russian Revolution: Alexander Friedman and his Concept of a Dying and Reviving Universe,” Space Research Institute, Russian Academy of Sciences, Moscow (June 2015)
- “Center on Periphery: How Copenhagen became the ‘Mecca’ of Theoretical Physics,” Laboratory of High Energy Physics, Joint Institute for Nuclear Research, Dubna, Russia (June 2015)
- “Origins of Big Bang Cosmology, 1917-1934,” Centro Multidisciplinar de Astrofísica, Instituto Superior Técnico, Lisbon, Portugal (July 2015)
- (keynote public lecture) “World War I, Revolution, and General Relativity, 1914-1924,” XXV Encontro Nacional de Astronomia e Astrofísica, Lisbon, Portugal (July 2015)

“Einstein, General Relativity and Internationalism in the Time of World Wars,” Universidade Estadual de Feira de Santana, Feira de Santana, Brazil (November 2015)

(keynote speaker) “Identity and Responsibility of Science: The Legacy of 20<sup>th</sup> Century Ideological Debates,” Sixth International Conference on Science in Society, Vancouver (October 2014)

“Space-Time, Death-Resurrection, and the Russian Revolution,” Department of History, University of California Los Angeles, Los Angeles CA, USA (October 2014)

“Big Bang Scenarios Before the Discovery of the Red Shift: Alexander Friedman and the Foundations of Relativistic Cosmology,” California Institute of Technology, Pasadena, USA (October 2014)

“From ‘Planning Science’ to ‘Goal-Oriented Research’: Soviet Science Policy in Cross-Ideological Encounters,” International conference “Basic and Applied Research: Historical Semantics of a Key Distinction in 20<sup>th</sup> Century Science Policy,” University of Bonn, Germany (February 2014)

“Science and Humanism: Andrei Sakharov,” “Peace and the Environment,” Symposium at Simon Fraser University, Vancouver, BC (February 2014)

“Alexander Friedman and the Origins of Big Bang Cosmology,” Department of Physics, University of Guelph, Guelph, ON (November 2013)

(keynote speaker) “Tacit Knowledge and Iron Curtain,” annual meeting of the Deutsche Gesellschaft für Geschichte der Medizin, Naturwissenschaft und Technik, Jena, Germany (September 2013)

“Revolution and the Big Bang: Space-Time, Death-Resurrection, and the Relativistic Cosmology of Alexander Friedman,” Joint Institute for Nuclear Research, Dubna, Russia (June 2013)

“Tacit Knowledge and Iron Curtain: Cold War Transformations of Soviet Science,” Münchner Zentrum für Wissenschafts- und Technikgeschichte; Deutsches Museum, Munich, Germany (June 2013)

“Alexander Friedman and the Origins of Big Bang Cosmology,” Program in History of Science, Technology, and Medicine; University of Minnesota, Minneapolis, MN, USA (February 2013)

(invited speaker) “Science as Co-Producer of Soviet Polity,” Annual Meeting of the Japanese Society for the Study of Russian History, Kyoto, Japan (October 2012)

(invited speaker) “Russian, Soviet, and Post-Soviet Scientific Migration: History and Patterns,” – American Physical Society Meeting, Dallas, TX, USA (March 2011)

(invited speaker) “The Cold War and Soviet Physics,” Deutsche Physikalische Gesellschaft Tagung, Dresden, Germany (March 2011)

“Space-Time and the Russian Revolution: Alexander Friedman and his Contemporaries,” Niels Bohr Institut, Copenhagen, Denmark (February 2011)

(keynote speaker) “A Grande Ciência de Stalin: Tempos e Aventuras de Físicos Soviéticos,” 7<sup>o</sup> Congresso Latino-americano de História da Ciência e da Tecnologia, Brazil (November 2010)

“Lev Landau in Physics and Politics,” Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro, Brazil (November 2010)

“Soviet Science and its Cold War Restructuring,” Universidad Nacional Autónoma de México, Mexico-City (May 2010)

“Lev Landau: Theoretical Physics and Stalinist Purges in Soviet Russia,” Jiao Tong University, Shanghai, China (June 2009); Tsinghua University, Beijing, China (May 2009)

## Conferences and Colloquia Presentations (selected, since 2010)

- (with Climério da Silva Neto) “Geneva, Dubna, and the IUPAP: Science Diplomacy and International Cooperation beyond the Iron Curtain,” IUPAP History Workshop (December 2021)
- “Reforms of Education and the Movement for Advanced Mathematics Curriculum in the 1960s,” XV annual conference, Moscow Polytechnical Museum, Russia (December 2021)
- (with Climério Paulo da Silva Neto) “Non-linear Feedback Loop: Radio-Engineering and Fundamental Science in the Soviet School of Oscillations,” Society for the History of Technology annual meeting, New Orleans, LA (November 2021)
- “When Space-Time met the World Revolution,” 26<sup>th</sup> International Congress of History of Science and Technology, Prague, Czech Republic (July 2021)
- (with Kirill Rossiianov) “Abortions, Eugenics, and Artificial Reproduction in the Soviet Union, 1920-1936,” conference *Gouverner les sciences et les techniques, gouverner par les sciences et les techniques: quels enjeux pour les femmes? (fin XIX siècle – début XXI siècle)*. Paris (July 2021)
- (with Alexandre Bagdonas) “Funny Origins of the Big Bang Theory,” *CHORUS: Colloquium for the History of Russian Science* (March 2021)
- “The Beginnings of Soviet Theoretical Physics,” 2025 *Quantum Century Group*. Max-Planck-Institute for History of Science, Berlin (January 2021)
- (with Kirill Rossiianov) “Test-Tube Babies in Soviet Biology of the 1920s,” XIV annual conference, Moscow Polytechnical Museum, Russia (December 2020)
- “Legalization of Abortions: The First Hundred Years,” Association for Slavic, East European, and Eurasian Studies, 2020 Annual Convention, Washington, DC (November 2020)
- “Space-Time, Death-Resurrection, and the Russian Revolution,” European Society for the History of Science meeting, Bologna, Italy (September 2020)
- “Writers, Critics, and the ‘Rootless Cosmopolitans’: Antisemitism and Antiracism in Post-WWII Soviet Union,” Department of History, UBC (January 2020)
- “Postdoctoral Revolt and the Invention of Quantum Mechanics,” Workshop “Fundamentos e Interpretações da Mecânica Quântica: Aspectos Históricos e Conceituais,” Brazil (December 2019)
- (with Kirill O. Rossiianov) “Biosocial Boundaries, Abortions and Eugenics in Soviet Russia,” Canadian Association of Slavists, 2019 Annual Conference, Vancouver, Canada (June 2019)
- “Space-Time in Upheaval: Relativistic Cosmology and the End of a Static Universe,” Fifth International Conference on the Nature and Ontology of Spacetime, Albena, Bulgaria, (May 2018)
- “More is Different, or the ‘Transition from Quantity to Quality’,” Workshop “Weak and Strong Knowledge in Solid State Physics and the Material Sciences,” Frankfurt am Main (May 2018)
- “Space-Time, Death-Resurrection, and the Russian Revolution,” University of Geneva, Geneva, Switzerland (December 2017)
- “Scientific Internationalism in the Time of World Wars: The Copenhagen Community, the ‘Revolt of the Postdoc,’ and the Birth of Quantum Mechanics,” Symposium on the History of Physics, Federal University of Lavras, Lavras, Minas Gerais, Brazil (August 2017)
- “Empire of Knowledge”, or “Island of Democracy”: Reforms of the Russian/Soviet Academy of Sciences in Historical Comparison,” 25<sup>th</sup> International Congress of History of Science and Technology, Rio de Janeiro, Brazil (July 2017)



- “Science as Co-Producer of Soviet Polity,” Facultad de Humanidades, Universidad Autónoma del Estado de Morelos, Cuernavaca, Mexico (May 2016)
- “Probability Theory, Marxism, and Quantum Mechanics,” Institute for History of Science and Technology, Russian Academy of Sciences, Moscow, Russia (June 2015)
- “Quantum Electrodynamics and the Specter of a ‘Permanent Revolution’ in Physics, 1927-1932,” Fourth Conference on the History of Quantum Physics (HQ4), Donostia, País Vasco (July 2015)
- “Space-Time, Death-Resurrection, and the Russian Revolution,” Interdisciplinary Series “Eurasian States and Societies, Past and Present,” Green College, UBC, Vancouver, Canada (September 2015)
- “Space-Time, Death-Resurrection, and the Russian Revolution,” Association for Slavic, East European, and Eurasian Studies; 2013 Annual Convention, Boston, MA, USA (November 2013)
- (with Kirill Rossiianov) “Changing Biosocial Boundaries in History of Science,” Workshop “Uses and Abuses of Biology,” Christ’s College, Cambridge University, Cambridge, UK (September 2013)
- “The Copenhagen Community: The Fates of Internationalism in post-World War I Science,” 24<sup>th</sup> International Congress of History of Science, Technology and Medicine, Manchester (July 2013)
- “Revolution and the Big Bang: Space-Time, Death-Resurrection, and the Relativistic Cosmology of Alexander Friedman,” Institute for the History of Science and Technology, Moscow (June 2013)
- “Sakharov Revisited,” International Conference “Dark Matters: Contents and Discontents of Cold War Science,” Barcelona, Spain (June 2013)
- “Probability, Marxism, and Quantum Ensembles,” Physics Interest Group, University of Minnesota, Minneapolis, MN, USA (February 2013)
- “Space-Time, Death-Resurrection, and the Russian Revolution,” History of Science Society annual meeting, San Diego, CA, USA (November 2012)
- “Untangling Entanglement: Probability, Stalinism, and the Paradoxes of Quantum Mysticism,” 7<sup>th</sup> Joint Meeting of the British Society for History of Science, the Canadian Society for History and Philosophy of Science, and the History of Science Society; Philadelphia, PA, USA (July 2012)
- “Space-Time, Death-Resurrection, and the Russian Revolution: Alexander Friedman and the Origins of Big Bang Cosmology,” Program in STS; MIT, Boston, MA (May 2012)
- “Probability, Marxism, and Quantum Ensembles,” Program on Science Technology and Society; John F. Kennedy School of Government, Harvard University, Boston, MA, USA (May 2012)
- “Space-Time, Death-Resurrection, and the Russian Revolution,” Colloquium of the History Department, UBC (November 2011)
- “Space-Time and the Russian Revolution,” “Pharmakon,” Society for Literature, Science, and the Arts, 25<sup>th</sup> annual conference, Kitchener, ON, Canada (September 2011)
- “Space-Time and the Russian Revolution,” Canadian Society for the History and Philosophy of Science / 2011 Congress of the Humanities and Social Sciences, Fredericton, NB (May 2011)
- “Collectivized Electrons and Revolutionary Space-Time: Cultural Dialects of Soviet Physics,” Zentrum für Literatur- und Kulturforschung, Berlin, Germany (February 2011)
- “Cold-War Mobilization of Science in the Soviet Union,” Conference “Intellectual History of the Cold War,” Hamburg, Germany (September 2010)

## **Commentator and Panelist (selected, since 2010)**

- (invited discussant) Discussion of Elena Aronova's *Scientific History: Experiments in History and Politics. HPS.CESEE: History of Science in Central, Eastern, and Southeastern Europe* (May 2021)
- (round-table) "Technological and Scientific Vestiges of Socialism: Infrastructure, Institution, and Cultural/Educational Programs across the 1989/1991 Divide," Association for Slavic, East European, and Eurasian Studies, Convention, Washington DC (November 2020)
- (panel) "Science in the Soviet Union," Canadian Society for the History and Philosophy of Science, 2019 Annual Conference, Vancouver, Canada (June 2019)
- (panel) "Colossi with Feet of Clay: Stable Theories and Fragile Foundations," History of Science Society annual meeting, Seattle, WA, USA (November 2018)
- (roundtable) "Science, Academics, and Everyday Life in the Era of the 1917 Revolution," 49<sup>th</sup> annual convention, Association for Slavic, East European and Eurasian Studies, Chicago (November 2017)
- (panel) "Professional Milieus of the Utopia," Conference "Scientific Utopias in the Soviet Union: Fiction, Science, and Power (1917-1991)," Paris, France (September 2016)
- (commentator) Panel "History of Quantum Physics," Canadian Society for the History and Philosophy of Science, annual conference, 2016 Congress, Calgary, AL (May 2016)
- (commentator) Panel "Sociological Studies of Quantum and Nuclear Physics," Third Biennial Early-Career Conference for Historians of the Physical Sciences, Annapolis, MD, USA (April 2016)
- (commentator) Panel "The General Scientific Staff: From the History of the USSR Academy of Sciences," IX World Congress of the International Council for Central and East European Studies, Makuhari, Japan (August 2015)
- (panel) "The Politics of Nature in the Soviet Union: Toward a Global Future beyond Communism," IX World Congress for Central and East European Studies, Makuhari, Japan (August 2015)
- (chair and commentator) Panel "Empire in Evolution: The Ambiguities of Human Diversity in Imperial Russia and the Soviet Union," History of Science Society meeting, San Francisco (November 2015)
- (commentator). Workshop: Dark Matters II: Science and the Cold War in a Decolonizing World, University of British Columbia, Vancouver (September 2014)
- (commentator) Session "Quantum Theory in Context," conference "Global Science, Global Technology, Global Impacts," American Center for Physics, College Park, MD, USA (March 2014)
- (commentator) Panel: "Sites of Innovation under Socialism: From Camps to Kitchens," Association for Slavic, East European, and Eurasian Studies; 2013 annual convention, Boston (November 2013)
- (commentator) "Foundations at the Philosophical Turning-Points: Chronicling Conceptual Turns in the Theories of Modern Physics," History of Science Society; 2013 Meeting, Boston (November 2013)
- (panel) "Hybrid Research Fields, circa 1940-1980," annual meeting of the *Deutsche Gesellschaft für Geschichte der Medizin, Naturwissenschaft und Technik*. Jena, Germany (September 2013)
- (commentator) Symposium S065: "Knowledge between Transmission and Local Cultural Boundaries: Migrating Scientists and Physicians in the Twentieth Century," 24<sup>th</sup> International Congress of History of Science, Technology and Medicine, Manchester, UK (July 2013)
- (commentator) Symposium S106: "Philosophy at Work in Modern Physics," 24<sup>th</sup> International Congress of History of Science, Technology and Medicine, Manchester, UK (July 2013)

- (concluding roundtable) Second International Workshop on Lysenkoism, Vienna, Austria (June 2012)
- (commentator) Panel “Defining Disciplines,” conference “Continuity and Discontinuity in the Physical Sciences since the Enlightenment,” American Institute of Physics, MD, USA (July 2011)

### **Conferences Organized**

- (co-organizer, with Slava Gerovitch) Panel “Community Structures and Scientific Habitus: Soviet Scientists’ Forms of Life Outside Official Academic Institutions.” XV annual conference, Moscow Polytechnical Museum, Russia (9 December 2021).
- (organizer) Panel “Making and Modeling Wireless Waves: from Hertz to Andronov,” Society for the History of Technology annual meeting, New Orleans, USA (November 2020, postponed until 2021)
- (co-organizer, with Slava Gerovitch) CHORUS: Colloquium for the History of Russian Science (online, 2020, continuing)
- (co-organizer, with Jaume Navarro) Symposium “Popular Representation/Misrepresentation of Modern Physical Theories,” European Society for the History of Science, Bologna, Italy (September 2020)
- (co-organizer, with Paul Cadden-Zimansky) Session “History of Soviet Physics,” American Physical Society Meeting, Los Angeles, CA (March 2018)
- (organizer) Panel: “Science in Revolutionary Upheaval: Scientific Responses to the Russian Revolution,” Association for Slavic, East European, and Eurasian Studies; 2013 Annual Convention, Boston, MA (November 2013)
- (co-organizer, with Helge Kragh) Symposium S105: “One Hundred Years of the Bohr Atom,” the 24<sup>th</sup> International Congress of History of Science, Technology and Medicine, Manchester (July 2013)
- (co-organizer, with Dieter Hoffmann, Stuart W. Leslie, Albert Presas i Puig, Xavier Roqué, José Manuel Sánchez Ron, and Jessica Wang) International Conference: “Dark Matters: Contents and Discontents of Cold War Science,” Barcelona, Spain (May-June 2013)
- (co-organizer, with Olival Freire, Christian Forstner, and Leonardo Gariboldi) Symposium “Nuclear Physics after WWII,” The 4<sup>th</sup> International Conference of the European Society for the History of Science, Barcelona, Spain (November 2010)
- (co-organizer, with Anja Skaar Jacobsen and Masakatsu Yamazaki) Symposium “Marxism and 20<sup>th</sup> Century Natural Science,” XXIII International Congress of History of Science and Technology, Budapest, Hungary (August 2009)
- (co-organizer, with Cathryn Carson) International conference: “The Cultural Alchemy of the Exact Sciences: Revisiting the Forman Thesis,” Vancouver, BC (March 2007)
- (organizer) Panel “Intelligentsia and Russian Science, 1860-1960,” History of Science Society annual meeting, Austin, TX (November 2004)
- (co-organizer, with Michael Gordin and Karl Hall) International conference “Intelligentsia: Russian and Soviet Science on the World Stage, 1860-1960,” Athens, GA (October 2004)
- (co-organizer, with Douglas Northrop) Georgia Colloquium on New Russian History (2002-2003) and Southern Seminar in Eurasian Studies, University of Georgia, Athens (December 2003)
- (co-organizer, with Slava Gerovitch) Panel “Scientific Text, Political Texture: Post-Cold War Perspectives on Soviet Science,” History of Science Society Meeting, Pittsburgh (November 1999)

- (co-organizer, with Anne Fitzpatrick, Elizabeth Paris, and Steven Weiss) Joint Atlantic Seminar in the History of Physical Sciences, Washington, DC (September 1999)
- (organizer) Conference “New Approaches to History of Russian Science,” Institute for History of Science and Technology, Moscow, Russia (September 1996)
- (co-organizer, with Cathryn Carson and Karl Hall) Panel “Reading American Physics from the Outside, 1945-1955,” History of Science Society Meeting, New Orleans (November 1994)
- (co-organizer) 3rd and 2nd Conferences on the “Social History of Soviet Science,” Moscow, Institute for History of Science and Technology (May 1991 and April 1990)
- (co-organizer) Annual Schools in History of Science and Technology, Institute for History of Science and Technology, Moscow (1990, 1989, and 1988)
- (organizer and editor of the volume of proceedings) Conference “Paul Dirac and The History of the Quantum Theory,” Institute for History of Science and Technology, Moscow (October 1986)

### **Courses Taught (undergraduate and graduate)**

Introduction to the History and Philosophy of Science; Cultural Histories of Science; History of Ancient and Medieval Science, Medicine, and Technology; The Origins of Modern Science; Scientific Revolution: Circulation of Knowledge in the Early Modern World; History of Modern Science; Historical Sociology of the Scientific Profession; Science and Society in the Contemporary World; International Ramifications of Science and Technology; Proseminar in Science and Technology Studies.

Newton, Einstein, Bohr: History and Philosophical Lessons of Modern Physics; From Frankenstein to Einstein; 20th-Century Revolutions in the Physical Sciences; The Nuclear Century: Scientists, Atoms, and the World Order since 1900; Science after WWII; Nuclear Controversies: From the Cuban Crisis to Fukushima (Seminar in the History of International Relations).

Historiography, or What does it Take to be a Historian; Western Societies since 1500; Medieval and Early Modern Russian History; Imperial Russia; The Soviet Union; Russian Cultural History; Stalin and Stalinism; International Communist Movements and their Legacies; Social History of Russian and Soviet Science; Public Intellectuals and Historical Reflexivity.

**Visiting Professorships:** Moscow Higher School of Economics, Russia; Universidade Federal da Bahia, Brazil; Universitat Autònoma de Barcelona, Spain; Instituto Superior Técnico, Lisbon; University of Maryland, College Park; Moscow State University; Indiana University, Bloomington.

**MA and PhD Theses Supervised and Co-Supervised:** Zhanara Almazbekova (2021), Ataolla Heshmati (2021), Banu Kayir (2020), Kenneth Corbett (2020), Eric M. Johnson (2019), Mariya Boyko (2019), Jean-Philippe Martinez (2017), Alexey Golubev (2016), Clímèrio Paulo da Silva Neto (2015), Somaditya Banerjee (2013), Izabel Izquierdo Campos (2013), Anna Zhidkova (2004).

### **Work in Progress**

*Space-Time, Death-Resurrection, and the Russian Revolution.*

*Changing Biosocial Boundaries and Cross-Cultural Encounters* (with Kirill O. Rossiianov).

### **Academic and Editorial Service**

since 2021 – member of the International Editorial Council, *Revista Brasileira de História da Ciência*

since 2020 – member of the Editorial Board, *American Journal of Physics and Applications*

since 2020 – member of the International Expert Council, Russian Scientific Foundation

since 2019 – member of the editorial board, *History and Modern Perspectives*, Moscow

since 2003 – member of the International Editorial Board, *Voprosy Istorii Estestvoznaniia i Tekhniki*,  
(Russian Journal for Science studies) Moscow

2008-2019 – advisory editor, *Historical Studies in the Natural Sciences*

2013-2017 – International Union of History and Philosophy of Science, Secretary of the International  
Commission on the History of Physics

2009-2013 – International Union of History and Philosophy of Science, President of the International  
Commission on the History of Physics

2007-2008 – member, Transitional Editorial Committee, *Historical Studies in the Physical and  
Biological Sciences*

1999-2000 and 2006-2007 – member of the Physics Advisory Team, *Encyclopaedia Britannica*

1998-1999 – member of the advisory board, *The Oxford Companion to the History of Modern Science*