

Edoardo Amaldi and the Scientific Collaboration with the USSR

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Soviet Physics and the West

This essay focuses on the role Edoardo Amaldi played in promoting international scientific collaboration with the Soviet Union during his presidency of the International Union of Pure and Applied Physics (IUPAP). Amaldi was President of the Union for three years, between 1957 and 1960, a crucial period for the processes of decolonization, European integration, and the Cold War confrontation. Although the views and the actions of physicists in IUPAP cannot be considered as a direct consequence of their governments' decisions, the development of international cooperation in physics must be framed within a broader political context.

In the 1950s theoretical physics and mathematics became the most advanced scientific fields in the USSR.¹ A group of talented young physicists, the most important of whom was Lev Davidovich Landau, had introduced quantum mechanics in the USSR in the previous decades and developed it throughout the 1940s and 1950s.² In 1956, the Joint Institute for Nuclear Research was created in Dubna, with the aim that it should play the same role as the European Organization for Nuclear Research (CERN) for the socialist camp. One year later, the Soviets built Akademgorodok, the city of science in Siberia.³ In 1958, three Soviet scientists, Igor Tamm, Ilya Frank, and Pavel Cherenkov, were awarded the Nobel Prize in physics “for the discovery and the interpretation of the Cherenkov effect.” Four years later, it was the turn of Lev Landau to be awarded the Nobel Prize.

Thus, it comes as no surprise that in the 1950s many Western physicists became interested in knowing more about research carried out by their colleagues in the USSR. Soviet books were translated into Western languages throughout the 1950s and 1960s. Landau and Lifshitz's textbooks were translated into English beginning in 1951.⁴

In 1977, a survey of the US National Academy of Sciences (NAS), which assessed the exchange program between the NAS and the Academy of Sciences of the Soviet

¹ See Alexei Kojevnikov, *Stalin's Great Science: The Times and Adventures of Soviet Physicists* (London: Imperial College Press, 2004), 72.

² Kojevnikov, *Stalin's Great Science*, 78.

³ See Paul Josephson, *New Atlantis Revisited: Akademgorodok, the Siberian City of Science* (Princeton: Princeton University Press, 1997).

⁴ See Karl Hall, “Think Less about Foundations: A Short Course on Landau and Lifshitz's *Course of Theoretical Physics*,” in *Pedagogy and the Practice of Science: Historical and Contemporary Perspectives*, ed. David Kaiser (Cambridge: MIT Press), 253–86.

Union, reported that US physicists and astronomers considered very positive the exchange program with their Soviet colleagues, even “if they feel the program had not been useful to them in generating new results.” Physicists deemed very important the sharing of existing knowledge.⁵ Nonetheless, in 1957, when Amaldi was elected President of IUPAP by Western scientists, the Soviet Union was still “a riddle wrapped in a mystery inside an enigma,” as Winston Churchill said in a BBC radio broadcast delivered on October 1, 1939.

The Election of Amaldi and Relations with the Soviets

The re-establishment of relations with Soviet physicists was one of the main reasons for the appointment of Amaldi as President of IUPAP. Amaldi’s candidacy was promoted by the President of the Union, Nevill F. Mott, and the Secretary General, Pierre Fleury (Figure 13.1).

On August 16, 1956, Mott asked Amaldi if he could propose his name to the Executive Committee of IUPAP for the presidency of the Union. Mott recalled that the most important task of the previous years had been the re-establishment of the contacts with Soviet physicists in the international community: “When I accepted the position as successor of Kramers I thought that the chief and most important job of the Union would be in re-establishing contact with the Russians.”⁶ Mott and Fleury had previously established contacts with Soviet physicists. On November 2, 1955 Fleury sent a letter to the Soviet Embassy in Paris addressed to the President of the Academy of Sciences of the Soviet Union, in which he asked the academy to join IUPAP.⁷ Some months later Patrick Blackett also sounded out Vladimir Englehardt, a member of the Academy of Sciences of the Soviet Union, at a meeting of the International Council of Scientific Unions (ICSU).⁸ The inclusion of the Soviet Union in IUPAP was part of the mission of the Union, as one of its aims was to create and encourage international cooperation in physics.⁹ Amaldi accepted Mott’s proposal.¹⁰ On December 10, 1956 Mott communicated to Amaldi that the Executive Committee agreed on his candidacy.¹¹ Some years before Mott had collaborated with the Italians to circulate Eastern European science in the West. Mott wanted the translation of a number of Eastern Europe studies into English. Giovanni Polvani offered the journal of the Italian Physics Society (SIF, from its Italian name *Società Italiana di Fisica*) he

⁵ Karl Kaysen, *Review of U.S.-U.S.S.R. Interacademy Exchanges and Relations*, (Washington, DC: National Academy of Sciences, 1977), 70.

⁶ Nevill Mott to Edoardo Amaldi, August 16, 1956, box 34, folder 1, subfolder 2, “IUPAP 1948–1959,” Fondo Edoardo Amaldi, subfondo Archivio Dipartimento di Fisica, Physics Department Archives of Sapienza University of Rome (hereafter AEA).

⁷ Pierre Fleury to the President of the Academy of Sciences of the Soviet Union, November 2, 1955, series E6, vol. 12, folder 42, “Russia 1947–1999,” IUPAP, Gothenburg secretariat, Center for the History of Science, Royal Swedish Academy of Sciences (hereafter IUPAP Gothenburg).

⁸ Patrick Blackett to Fleury, January 18, 1956, series E6, vol. 12, folder 42, “Russia 1947–1999,” IUPAP Gothenburg.

⁹ *L’Union Internationale de Physique Pure et Appliquée. Procès verbal de la VIIIe Assemblée Générale*, 29, series B2aa, vol. 1, IUPAP Gothenburg.

¹⁰ Amaldi to Fleury, August 22, 1956, box 34, folder 1, subfolder 2, AEA.

¹¹ Mott to Amaldi, December 16, 1956, box 34, folder 1, subfolder 2, AEA.

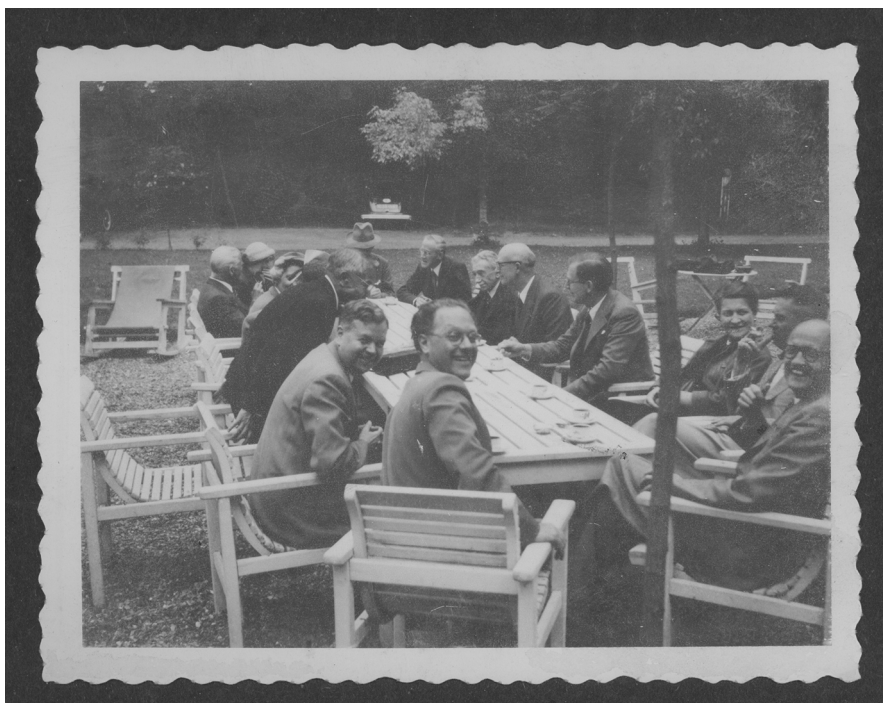


Figure 13.1 Edoardo Amaldi at the IUPAP Executive Committee meeting in 1952. To his left is John Slater. In the center on the opposite side of the table Nevill F. Mott and Pierre Fleury can be recognized

Source: Sapienza University of Rome, Archives of the Department of Physics, Edoardo Amaldi Fund, Amaldi Heirs Archive Subfund, third deposit, box 3, folder Photo Collection 4. Image digitized by the Sapienza Library System, and extracted from the Sapienza Digital Library digital resource (URI: AMALDI0265).

directed, *Il Nuovo Cimento*.¹² Two special issues of *Il Nuovo Cimento* came out, the first one in 1953 and the second one in 1955.¹³ Mott was disappointed because contacts had been re-established at the Geneva conference on Atoms for Peace in 1955

¹² See Boutry to Fleury of February 8, 1954 and Amaldi to Polvani in AEA box 34, folder 1, subfolder 2. Polvani had been a member of the Union's commission on publication since 1954. See International Union of Pure and Applied Physics. Position at January 1, 1958. "Report of the Ninth General Assembly (1957)," 9, in series B2aa, vol. 1, folder A, IUPAP Gothenburg.

¹³ See *Il Nuovo Cimento*, April 1953, supplement issue 4, and January 1955, vol. 1, supplement issue 4, "Rassegne di Lavori di Fisica Pubblicati Negli ultimi Anni in Europa Orientale e Particolarmente in Russia." Contributions of the 1953 Special issue included J. Turkevich, "Soviet Physics;" R. W. Cahn, "Soviet Work on Mechanical Twinning;" A. L. Mackay, "Recent Soviet Work in the Field of Crystallography;" A. L. Mackay, "Crystallography in Eastern Europe;" M. Magat, "Travaux soviétiques sur la théorie de la liaison chimique;" S. Roseblum, "Sur les travaux de magnétisme en U.R.S.S.;" D. Schoenberg, "Recent research on superconductivity in the U.S.S.R.;" W. J. Swiatecki, "Polish Physics;" G. Wataghin, "Recent research on cosmic radiation in the Soviet Union;" J. Wilks, "Recent Russian work on liquid helium." Contributions to the 1955 Special issue included: J. G. Valatin, "Foreign Language Publications in Physics of the Hungarian Academy of Science;" L. Jánosst, "Survey of Researches in Physics in Hungary (I);" B. S. Lement, "Review of Recent Papers on Martensitic Transformations Published in the USSR;" A. Stoyko, "Travaux soviétiques

and not thanks to the efforts of the Union. Nonetheless, Mott thought that IUPAP had to play a part in re-establishing connections with Soviet physicists.

It had been diplomatic action rather than that of scientists that fostered the resumption of contacts with the USSR. On July 18, 1955 a meeting between the foreign affairs ministers of Britain, France, the USA and the USSR took place in Geneva. The three Western ministers submitted a seventeen-point proposal to remove barriers on information and science to the Soviet foreign affairs minister, Vyacheslav Molotov, who rejected it. Molotov was instead willing to promote bilateral or multilateral agreements, which could mirror what was of interest for the countries involved.¹⁴ After the Geneva meeting, the USA and the USSR started discussing an agreement on cultural, scientific and technological cooperation. In the same year, 1955, a few cultural exchanges took place. US scholars, politicians, and religious leaders visited the USSR. Soviet musicians performed in the USA and vice versa.¹⁵ In December 1955, Alexander Nesmeyanov, the President of the Academy of Sciences of the Soviet Union, invited a delegation of ten or twelve members of the US NAS to visit the USSR for three to four weeks to discuss future collaboration. Detlev Bronk, the President of the NAS, took his time. He discussed the matter with the Department of State. In August and October 1956 two drafts of answers were prepared.¹⁶ In October 1956, however, after the Soviets invaded Hungary, the USA broke off negotiations.¹⁷ The re-establishment of connections with the Soviets was the result of the combined geopolitical strategies of the USA and the USSR, in which science and technology played a pivotal role. Mott and Fleury thought that physicists had to take the initiative. In 1956, the Academy of Sciences of the Soviet Union had officially asked to enter IUPAP.¹⁸ On October 4, 1957 the Soviets launched Sputnik 1, the first unmanned satellite to orbit around the Earth. It was the beginning of the space race, but it also accelerated the resumption of negotiations between the USA and the USSR. In the same years in which scientific and technological competition between the two blocs was intensified, the USSR and the USA also resumed their collaboration on science and technology. In 1958 the “Agreement Between the United States of America and the Union of Soviet Socialist Republics on Exchanges in the Cultural, Technical and Educational Fields,” the so-called the Lacy–Zaroubin Agreement, was signed. Under the Lacy–Zaroubin scheme some 400 US researchers and 400 Soviet researchers traveled each way. By the end of the 1950s the USSR and some of the Eastern European countries also returned to a number of international organizations from

sur le service de l’heure;” A. Stoyko, “Rapport succinct sur les travaux russes d’astronomie fondamentale;” and two errata by Mackay. See also, the chapter by Da Silva in this volume.

¹⁴ Robert F. Byrnes, *Soviet-American Academic Exchange, 1958–1975* (Bloomington: Indiana, 1976).

¹⁵ Yale Richmond, *Cultural Exchange and the Cold War: Raising the Iron Curtain* (Philadelphia: University of Pennsylvania Press, 2003), 10.

¹⁶ Memorandum From Cornell to Bronk of January 15, 1958, NAS/NRS Archives, “International Relations 1959.” US-USSR exchange of scientists. Interacademy Agreement: Agreement.

¹⁷ Memorandum of Zaroubin-Lacy, conversation of September 9, 1957, Central Intelligence Agency (CIA) Archives available under the FOIA RDP62S00346A000100050001-1; translated copy of Memorandum handed to Ambassador Lacy by Zaroubin in CIA Archives available under the FOIA CIA-RDP62S00346A000100050002-0.

¹⁸ Mott to Amaldi, August 16, 1956, box 23, folder 1, subfolder 2, AEA.

which they had withdrawn in the Stalin years, such as the World Health Organization (WHO), the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and IUPAP itself. This strategy mirrored Khrushchev's design of competing peacefully for worldwide hegemony with a view to the countries that were gaining independence from their former colonizers. "Peaceful coexistence" would allow the Soviet Union to boost the domestic standard of living. At the same time scientific and technological achievements would expand Soviet influence in the developing countries. In Khrushchev's view, in the medium run, the standard of living of citizens of the Soviet Union would overtake that of US citizens, and in the long run capitalism would collapse. In 1961, after the Soviets had sent the first man into space, Khrushchev declared that by the end of the decade the USSR would overtake the USA in the standard of living of its citizens. This claim is often understood in the light of the so-called Kitchen Debate, and after the collapse of the USSR it might appear to be a boastful statement. It is worth noting, however, that at the beginning of the 1960s all major US economists were persuaded that, given the current growth rates, the Soviet economy would overcome that of the USA in a few decades. In 1961, Paul Samuelson foresaw that the Soviet economy would overtake that of the USA in a period of between twenty-three and thirty-six years.¹⁹

US science policymakers were interested in closer contact with the Soviets. In 1977, a report of the NAS, the federal institution that under the Lacy-Zaroubin Agreement was in charge of the management of the interchange program with the Soviet Academy of Sciences, remembered that the program had allowed to keep a closer eye on the Soviets' progress in science and technology and avoid another Sputnik surprise.²⁰

Amaldi as a Science Policymaker

Edoardo Amaldi was proposed by Fleury and Mott as President of the Union. Mott appreciated Amaldi's personal qualities. He wrote to Amaldi that some members of the Executive Committee (including himself) thought that Fleury was too formal. Amaldi replied that:

During the Assembly I was also told by some of the members that Fleury seems to be sometimes formal in his Secretary's work. I must however tell you that I am not able to understand quite well what he ought to do to improve his office organization.

I will, on my hand, try to keep personal contacts with the various national committees. Any advice you will give to me will be extremely helpful.²¹

In the following years, Amaldi and Fleury worked together to stimulate international cooperation. Whenever a complex question arose, Amaldi consulted Mott.

¹⁹ See David M. Levy and Sandra J. Peart, "Soviet Growth and American Textbooks: An Endogenous Past," *Journal of Economic Behavior and Organization*, 78 (2011): 110–25.

²⁰ Kaysen, *Review*.

²¹ Amaldi to Mott, October 1, 1957, box 106, folder 4, subfolder 1, "Corrispondenza Presidente 1957–1960," AEA.

Amaldi was proposed not only because of his personal qualities, but also because of his vision and his ability to handle intertwined complex issues. Amaldi was a pupil of Enrico Fermi, who had gathered around him a number of talented young physicists mostly working on nuclear physics and cosmic rays. According to Amaldi, the events of 1938—the Nazi occupation of the Sudeten, the *Anschluss*, and the promulgation of the Racial Laws in Italy, which restricted liberties for Italian citizens of Jewish origin—were crucial for the history of the group.²² Apart from Ettore Majorana, who had disappeared with no trace during a sea journey from Palermo to Naples in 1935, all the others were affected in one way or another by the events of 1938.²³ Fermi, whose wife was Jewish, went to Stockholm for the award ceremony of the Nobel Prize and did not return to Italy. He and his family embarked on a ship to the USA, formally accepting an invitation as visiting professor at Columbia University, and did not go back to Italy.²⁴ Emilio Segrè and Bruno Pontecorvo were already abroad. Segrè was in Berkeley, and decided not to go back to Italy. He was in a way forced to stay as he had been “released from service.” Pontecorvo was in Paris, but after the Racial Laws could not return to Italy.²⁵ Two years later, when the Germans occupied Paris, he fled to Canada. Franco Rasetti had moved to Canada in 1939.²⁶

Amaldi on the contrary decided to remain in Italy. After the war, he took the lead of the whole community of Italian physicists. His task was to (re)construct Italian

²² Edoardo Amaldi, “Gli Anni della Ricostruzione,” 1979, box 89, folder 3, Fondo Edoardo Amaldi, sub-fondo Edoardo Amaldi Eredi, Physics Department Archives of Sapienza University of Rome (hereafter AAE). The manuscript was published by Gianni Battimelli in the *Giornale di Fisica*; see also Edoardo Amaldi, *Da via Panisperna all’America: I fisici italiani e la Seconda guerra mondiale*, G. Battimelli, M. De Maria, and A. La Rana, second expanded edn, (Rome: Editori Riuniti, 2022). On the Racial Laws and the persecution of the Jews see Renzo de Felice, *Storia degli Ebrei Italiani sotto il Fascismo* (Turin: Einaudi, 1972); Enzo Collotti, *Il fascismo e gli ebrei* (Rome-Bari: Laterza, 2006). On the persecution of Jewish scientists and their diaspora, Edoardo Amaldi, “Il caso della fisica,” in “Le conseguenze culturali delle leggi razziali,” *Atti del Convegno Lincei 84* (Rome: Accademia Nazionale dei Lincei: 1990), 107–133; Giorgio Israel and Pietro Nastasi, *Scienza e razza nell’Italia fascista* (Turin: Boringhieri 1998); Roberto Maiocchi, *Scienza italiana e razzismo fascista* (Florence: La Nuova Italia, 1999); Francesco Cassata, *Molti, sani e forti. L’Eugenetica in Italia* (Turin: Bollati Boringhieri, 2006); Francesco Cassata, “La Difesa della razza”. *Politica, ideologia e immagine del razzismo fascista* (Turin: Einaudi, 2008); Annalisa Capristo, “Italian Intellectuals and the Exclusion of Their Jewish Colleagues from Universities and Academies,” *Telos* 164 (2013): 63–95; Annalisa Capristo, “L’impatto delle leggi del 1938 sulla comunità scientifica italiana,” in *Bruno Zevi intellettuale di confine. L’esilio e la guerra fredda culturale italiana 1938–1950*, ed. F. Del Bello (Rome: Viella, 2019), 79–100.

²³ Majorana’s disappearance would later give rise to a number of hypotheses and even to novelistic reconstructions: Leonardo Sciascia, *La scomparsa di Majorana* (Turin: Einaudi, 1975); Erasmo Recami, *Il caso Majorana. Epistolario, documenti, testimonianze* (Milan: Mondadori, 1987); Erasmo Recami, *Il vero Ettore Majorana* (Rome: Di Renzo Editore, 2017); João Magueijo, *A Brilliant Darkness: The Extraordinary Life and Disappearance of Ettore Majorana, the Troubled Genius of the Nuclear Age* (New York: Basic Books, 2009).

²⁴ On Fermi see Emilio Segrè, *Enrico Fermi, Physicist* (Chicago: University of Chicago Press, 1972); G. Maltese, *Enrico Fermi in America. Una biografia scientifica* (Bologna: Zanichelli, 2003).

²⁵ Later on Pontecorvo fled to the USSR. He also became a member of the Soviet National Committee of IUPAP. See Union Internationale de Physique Pure et Appliquée. Circulaire d’information Juillet 1960, box 107, folder 2, “Corrispondenza e documentazione IUPAP 1957–61,” AEA. On Pontecorvo see Miriam Mafai, *Il lungo freddo. Storia di Bruno Pontecorvo, lo scienziato che scelse l’URSS* (Milan: Rizzoli, 2012); Simone Turchetti, *The Pontecorvo Affair: A Cold War Defection and Nuclear Physics* (Chicago: Chicago University Press, 2012); F. Close, *Half-Life: The Divided Life of Bruno Pontecorvo, Physicist or Spy* (New York: Basic Books, 2015).

²⁶ On Rasetti see Valeria Del Gamba, *Il ragazzo di via Panisperna* (Turin: Bollati Boringhieri, 2007); C. Buttarò and A. Rossi, *Franco Rasetti. Una Biografia Scientifica* (Rome: Aracne, 2007).

physics.²⁷ The diaspora had not only affected Fermi's group. Bruno Rossi, Giulio Racah, Ugo Fano, Eugenio Fubini, Sergio de Benedetti, Leo Pincherle, and others had also left the country between the late 1930s and the 1940s. One should say that, rather than 'reconstruct' Italian physics, an altogether new way of doing physics was 'constructed'. After World War II, research in certain sectors of physics, such as nuclear physics, could not be carried out at a small-scale laboratory level, but required the construction of big machinery, huge resources, and the coordination of various subjects, such as the state, the scientific community, and industry. This was also one of the reasons for Fermi, Segrè and other Italian physicists to migrate to the USA and not to return after the war ended. Doing research in physics after World War II was not just a matter of hiring and instructing a small group of talented young physicists as in Fermi's time.

Soon after the war, Amaldi, together with Gilberto Bernardini, Gian Carlo Wick, and Bruno Ferretti, decided that the scant resources of Italian physics should be concentrated in a few centers of excellence.²⁸ At the same time, between 1947 and 1951, Amaldi explored the possibility of building a particle accelerator in Italy. The small accelerator of the *Istituto Superiore di Sanità* (the Italian National Institute of Health) could compete with analogous machines in the major European and US laboratories.²⁹ Soon, however, the construction of nuclear reactors would have made these machines obsolete. Amaldi's attempts to build a more powerful particle accelerator, however, did not materialize.³⁰

Inter-European Scientific Collaboration

These experiences likely led Amaldi to think that physics could not be carried out in Italy unless the country was integrated into an international-scale research context. He promoted both the creation of the National Institute of Nuclear Physics (INFN) and of CERN, of which he became General Secretary between 1952 and 1954.³¹ In Amaldi's view the national venture and the inter-European one had to be complementary.³² The Italians created a commission within the CNR (*Centro Nazionale delle Ricerche*, the Italian National Research Council) to coordinate the work of Italian physicists who were involved in IUPAP, this committee acting as the IUPAP national committee.³³ The committee also commented on Italian participation in the CERN project.³⁴

²⁷ See Amaldi, 1979 "Gli Anni della Ricostruzione;" Edoardo Amaldi, *Da via Panisperna*.

²⁸ See Amaldi 1979 "Gli Anni della Ricostruzione."

²⁹ See Giovanni Battimelli, "Le origini del laboratorio di fisica," *Rendiconti dell'Accademia Nazionale delle Scienze detta dei XL. Memorie di scienze fisiche e naturali V XXIII*, II, I (1999): 149–60.

³⁰ See Giovanni Battimelli and Ivana Gambaro, "Da via Panisperna a Frascati: gli acceleratori mai realizzati," *Quaderni di Storia della Fisica I* (1997): 319–33.

³¹ Amaldi had been sounded out for directorship of the CERN laboratories but refused as he would have not had time to devote to research.

³² See H. Armin, J. Krige, and D. Pestre, *A History of CERN*, 3 vols. (Amsterdam: North Holland, 1987–1996); G. Battimelli, M. De Maria, and G. Paoloni, *L'Istituto Nazionale di Fisica Nucleare. Storia di una comunità di ricerca* (Roma-Bari: Laterza, 2001).

³³ Minutes of the meetings of this commission are in box 106, folder 1, "IUPAP 1948–61," AEA.

³⁴ Comitato Nazionale di Fisica di collegamento con la IUPAP, box 106, folder 1, "IUPAP 1948–61," AEA.

In the diaspora of Fermi's group there was a clear divide between those, like Fermi himself and Segrè, who participated in military research, and those, like Rasetti, who did not want to be involved in the construction of nuclear weapons. Rasetti gave up physics and focused instead on paleontology, geology, and botany. Amaldi was persuaded that research in physics had to be kept free from the military. When he paid a visit to Fermi, he was struck by the militarization of physics in the USA. Fermi could not speak freely to him of his research. Nor could Amaldi visit Fermi's laboratory.³⁵ The secrecy on research hindered the free circulation of ideas.

During fascism, Amaldi also learned something about the relations between science and politics. The "via Panisperna boys," as Fermi's research group was called, always recalled that Orso Mario Corbino, professor of experimental physics in Rome and Fermi's mentor, was worried about the rise of fascism, and that he aimed to protect the group from political interference. When Mussolini was entrusted by the king to form the government after the march on Rome, he formed a government including Catholic and liberal ministers. In 1923, the liberal Corbino was appointed Minister of National Economy, a newly created ministry. Fermi was appointed to the newly created *Reale Accademia d'Italia*, the institution that Mussolini created to contrast the *Reale Accademia dei Lincei*, which was dominated by antifascist scientists.

Amaldi had not compromised with fascism, and after the fall of fascism never adhered to any political party nor held any political post. He became a model civil servant.

In 1957, when Amaldi became President of IUPAP, the Treaties of Rome were signed. Although the process leading to the signature of the Rome Treaty was the result of negotiation between conflicting views, both the USA and the major European countries promoted the creation of forms of stronger inter-European economic integration.³⁶ The creation of inter-European scientific organization was also promoted as part of this process. Amaldi struggled for the peaceful nature of all the inter-European institutions. It can be instructive to consider Amaldi's contemporary action with regard to space and satellites research. At the eighth General Assembly of the International Council of Scientific Unions (ICSU), which took place in Washington on October 2–6, 1958, it was decided to create the Committee on Space Research (COSPAR). The primary purpose of the new committee was "to provide the world scientific community with the means whereby it may exploit the possibilities of satellites and space probes of all kinds for scientific purposes."³⁷ ICSU aimed to continue the collaboration on satellites and space research of the International Geophysical Year (IGY). IUPAP, which formed part of ICSU, also participated in meetings of COSPAR.³⁸ In December 1959, Amaldi was asked to represent IUPAP in COSPAR,

³⁵ Amaldi "Gli Anni della Ricostruzione."

³⁶ See Alan Milward, *The Reconstruction of Postwar Europe* (London: Routledge, 1984); P. M. Leffler, *A Preponderance of Power: National Security, the Truman Administration, and the Cold War* (Stanford: Stanford University Press, 1992); G. Lundestad, "Empire" by Integration: *The United States and European Integration, 1945–1997* (Oxford: Oxford University Press, 1998).

³⁷ Eighth General Assembly of ICSU, State Central Archive, National Research Council, Space Activities, San Marco series (hereafter ACS/CNR/Attività Spaziali/Serie San Marco) B 1.

³⁸ See Union Internationale de Physique Pure et Appliquée, "Rapport du Secrétariat générale," Avril 1960, box 107, folder 2, "Corrispondenza e documentazione IUPAP 1957–61," AEA.

but he refused.³⁹ Amaldi likely did not want an international role in COSPAR. On April 30, 1959 he sent a report to the President of the CNR and to a selected group of scientific policymakers in Europe.⁴⁰ This report reveals Amaldi's strong position with regard to the peaceful use of scientific research and inter-European cooperation. After summarizing the most important research that had been carried out and the most important results that had been achieved thanks to rockets and satellites up to that time, Amaldi suggested creating an inter-European institution in the field of space research and technology along the lines of CERN. He recalled that only the USA and the USSR had been able to launch satellites hitherto. If European countries did not want to be left out of space research and technology, they should set up an inter-European organization like CERN. According to Amaldi, the venture was urgent, otherwise within twenty years the gap would be too huge to catch up later. He recalled that satellite launches entailed not only achieving major scientific breakthroughs, like the discovery of the Van Allen radiation belts, the study of the atmospheric density up to the height of 400 km, and the measurement of the flow of micro-meteorites. They also entailed "an extraordinary industrial and technological development in the field of propellants, metallurgy, electronics, etc., development that has consequences on the whole productive level of the country."⁴¹ Amaldi was also aware of the huge resources that such an organization required; his rough estimation was that the budget should be twice as large as that of CERN, some 130 million CHF.⁴² Both Rabi and Kármán suggested that the North Atlantic Treaty Organization (NATO) could be involved in the project.⁴³ But Amaldi wanted to keep research free from the military. It is worth recalling that in the 1960s Amaldi would also be involved in the Pugwash movement.⁴⁴

³⁹ D. C. Martin to Fleury, December 3, 1959, box 106, folder 6, subfolder 6, "Corrispondenza Fleury," AEA.

⁴⁰ John Krige and A. Russo, *A History of the European Space Agency, 1958–1987. Vol I. The Story of ESRO and ELDO, 1958–1973* (Noordwijk: ESA, 2000), 19. The group also included Auger, President of the French CRS, J. H. Bannier, the director of the Netherlands Organization for the Advancement of Pure Research (ZWO), A. Hocker, at the German *Bundesministerium für Atomfragen*, J. Willems, the President of the Belgian *Institut Inter-Universitaire de Sciences Nucléaires*, C. J. Bakker, CERN's Director General, and the President of the Euratom Commission. See also Michelangelo De Maria and Lucia Orlando, *Italy in Space: In Search of a Strategy* (Paris: Beauchesne, 2006); M. De Maria, *Europe in Space: Edoardo Amaldi and the Inception of ESRO*, available at https://www.esa.int/espapub/hsr/HSR_05.PDF.

⁴¹ Edoardo Amaldi, Introduzione alla discussione su: Ricerche Spaziali in Europa, ACS/CNR/Attività Spaziali/Serie San Marco B 1. What later came to be called the Van Allen belts were discovered thanks to Explorer 1; see Krige and Russo, *A History*, 7.

⁴² Edoardo Amaldi Introduzione alla discussione su: Ricerche Spaziali in Europa in ACS/CNR/Attività Spaziali/Serie San Marco B 1. See Lodovica Clavarino, *Scienza e politica nell'era nucleare. La scelta pacifista di Edoardo Amaldi* (Rome: Carocci, 2014).

⁴³ See Lorenza Sebesta, "Italian Space Policy," in *Italy in Space: In Search of a Strategy* ed. Michelangelo De Maria and Lucia Orlando (Paris: Beauchesne, 2006), 51.

⁴⁴ Alison Kraft and Carola Sachse, eds., *Science, (Anti-)Communism and Diplomacy* (Leiden: Brill, 2019). See Lodovica Clavarino, *Scienza e politica nell'era nucleare. La scelta pacifista di Edoardo Amaldi* (Rome: Carocci, 2014); Lodovica Clavarino, "Italian Physicists and the Bomb: Edoardo Amaldi's Network for Arms Control and Peace during the Cold War," *Journal of Contemporary History* 56, no. 3 (2021): 665–92.

Amaldi was far from being anti-American. In a letter in support of Amaldi's candidacy, Fleury praised Amaldi's personality and also stressed the importance of his connections with the USA.⁴⁵

The Two Germanies and the Two Chinas

As President of IUPAP Amaldi promoted his view of peaceful inter-European and international scientific collaboration. Amaldi, Mott, and Fleury worked together to integrate Soviet physicists into IUPAP's activities.

At the Rome Assembly of IUPAP on September 17–20, 1957 the USSR became a member of the Union. In 1958, Amaldi was appointed foreign member of the Academy of Sciences of the USSR.

Soon after Amaldi's election, Mott ironically reminded him which were to be his most difficult tasks: "I very much hope you enjoy your six years of office with the Russians and the Chinese, I think you will have an interesting time."⁴⁶ As President of the Union, Amaldi had to face two big questions: the entrance into the Union of the German Democratic Republic and of China. As there are two chapters dedicated to these matters in this book, we will not follow the details of the events, but we will focus on how Amaldi handled the issue. West Germany had been a member of IUPAP since 1952 under the name *Deutsches Nationales Komitee*.⁴⁷ In most scientific associations which adhered to ICSU, East Germany and West Germany participated together under names that did not mention the two states, but only the German nation. On September 21, 1955, Alfred Büchner, the Secretary of the East German Physical Society, wrote to Fleury to enquire about the conditions for joining the Union.⁴⁸ As early as 1956, physicists of the two Germanies began negotiating joint participation. Thus, Gerlach, on behalf of the West German Physical Society, asked Fleury to stop the adhesion procedure of East Germany.⁴⁹ Negotiations did not come up with a positive solution, and in 1959 Büchner officially asked to join IUPAP. In 1958, both Taiwan and the People's Republic of China asked to join the Union. As already recalled, IUPAP was committed to encouraging international cooperation, so Amaldi's duty as President was to promote integration of the communities of physicists. Moreover, the IUPAP statutes stated that any country could be represented in the Union, whereas a country was defined as "*tout territoire ayant une activité scientifique indépendante*."⁵⁰ Thus, for IUPAP a country did not coincide with an independent state. At the meeting

⁴⁵ Fleury to Amaldi, August 13, 1956, box 34, folder 1, subfolder 2, AEA.

⁴⁶ Mott to Amaldi, September 24, 1957, box 106, folder 4, subfolder 1, "Corrispondenza Presidente," AEA.

⁴⁷ See the chapters in this volume by Olšáková, and by Hu, Liu, and Yin.

⁴⁸ A. Büchner to Fleury, September 21, 1955, series E6, vol. 7, folder 20, "German Democratic Republic 1955–1990 East Germany," IUPAP Gothenburg.

⁴⁹ W. Gerlach to Fleury, September 7, 1956, series E6, vol. 7, folder 20, "German Democratic Republic 1955–1990 East Germany," IUPAP Gothenburg.

⁵⁰ Union Internationale de Physique Pure et Appliquée. Confidentiel. Réunion du Comité Exécutif (Moscou 1959). Compte-rendu succinct, July 11–13, 1959, box 106, folder 6, subfolder 1, "IUPAP 1948–61," AEA.

of the Executive Committee held in Moscow in 1959 IUPAP accepted Taiwan. Continental China had been accepted at the Grenoble meeting in 1958. As Joffe argued with Fleury, this decision created a precedent for the two Germanies' case.⁵¹ Fleury consulted the Executive Committee and explained to his colleagues that on the basis of the statutes and the Taiwan/People's Republic of China precedent, they had to accept a separate representation of the German Democratic Republic.⁵² The Executive Committee approved Fleury's proposal and the decision was ratified by the General Assembly in Ottawa. When Chou Pei-Yuan, the President of the Physical Society of the People's Republic of China, was informed that Taiwan too had been accepted in the Union, he vehemently protested. Pei-Yuan sent a letter to Mott, who forwarded it to Amaldi, in which he threatened to withdraw from the Union unless the "so-called Chinese Physical Society" was expelled from IUPAP.⁵³ Amaldi asked Mott for advice.⁵⁴ Mott thought that it was not correct that Westerners should consult each other and exclude members of the Executive Committee from the Socialist bloc. He also advised Amaldi not to forward the letter to the Executive Committee, to prevent its members from consulting their government, but to disclose it only when they met in Ottawa, "while they are united in the friendly atmosphere of a general assembly."⁵⁵ Mott suggested that Amaldi should write to Chou Pei-Yuan first. Amaldi took his time. He considered this letter a very complicated task. Then, he wrote to Chou Pei-Yuan and politely explained the matter to him.

I would like to describe you the executive committee's point of view. According to the IUPAP regulations, even two bodies belonging to the *same country* (in a political sense) may become members of the IUPAP provided they represent physicists who are conducting their activities in two different geographical areas.⁵⁶

In his reply Amaldi tried to downplay the national nature of the representations in IUPAP. The two delegations should be intended as representatives of physicists working in two different geographical areas. By accepting either delegation, the Union did not commit itself to recognizing a state:

Bearing in mind this the Union's Executive Committee has taken the decision mentioned above with a view to avoiding that an important political issue arise within the Union which, on the other hand, is endeavouring to secure the collaboration of all physicists, irrespective of the political divergences prevailing in the world.⁵⁷

⁵¹ Joffe to Fleury, February 9, 1960, series E6, vol. 6, folder 19, "Fed. Republic of Germany 1952–1998," IUPAP Gothenburg.

⁵² Fleury to the Executive Committee, December 23, 1959, series E6, vol. 6, folder 19, "Fed. Republic of Germany 1952–1998," IUPAP Gothenburg.

⁵³ President of the Physical Society of the People's Republic of China to Mott, November 12 1959, box 106, folder 1, subfolder 6, "Corrispondenza Fleury 1959–60," AEA.

⁵⁴ Amaldi to Fleury, November 23, 1959, box 106, folder 1, subfolder 6, "Corrispondenza Fleury 1959–60," AEA.

⁵⁵ Mott to Amaldi, November 27, 1959, box 106, folder 1, subfolder 6, "Corrispondenza Fleury 1959–60," AEA.

⁵⁶ Amaldi to Chou Pei-Yuan, February 24, 1960, box 106, folder 1, subfolder 6, "Corrispondenza Fleury 1959–60," AEA.

⁵⁷ Ibid.

Amaldi also reminded Pei-Yuan that the same decision had been taken for East and West Germany. The Communist Chinese, however, could not accept this position. At that time the conflict between Continental China and Taiwan had come to a stalemate and the People's Republic of China was not even admitted in the United Nations. Chou Pei-Yuan communicated to Amaldi their decision to withdraw from the Union.⁵⁸ Amaldi communicated to the IUPAP assembly at Ottawa that, as the problems were of a political nature, it was better to wait for the decision of ICSU, on which IUPAP depended, but this proposal was not accepted by the General Assembly because each union "must settle its own affairs."⁵⁹ At the assembly it was restated "that countries should be designated by their geographical position." Amaldi and Fleury did not succeed in persuading the Communist Chinese that the United Nations and IUPAP were two different organizations. Eventually, China only entered the Union in 1984.⁶⁰

High Energy and Low Energy

In 1958, a Commission on High Energy Physics was created.⁶¹ The creation of this commission was, in a way, an attempt to extend the peaceful scientific collaboration of CERN and integrate the Soviets into it.⁶² The commission aimed to circulate knowledge on high energy by means of conferences, visits and exchange of preprints, but its goals went far beyond IUPAP's mission.⁶³

Not all the members of IUPAP shared the *Ostpolitik*. The integration of Eastern Europeans into IUPAP also had dissenting voices. On December 23, 1957 Verwey wrote to Mott that he was against the organization of an IUPAP conference on semi-conductor physics in countries beyond the Iron Curtain, as most Western European physicists would not participate.⁶⁴ Mott replied that either the Eastern and Western Europeans organized separate conferences, and IUPAP tried to support both, or there

⁵⁸ Chou Pei-Yuan to Amaldi, June 1, 1960, box 106, folder 6, subfolder 1, "Corrispondenza Fleury 1959-60," AEA.

⁵⁹ See Amaldi, opening speech delivered at the 11th General Assembly of IUPAP, in Ottawa, box 107, folder 2, "Corrispondenza e documentazione IUPAP 1957-61," AEA; see also Consiglio Nazionale delle Ricerche. Commissione Nazionale di fisica pura e applicata, box 106, folder 1, subfolder 1, "IUPAP 1948-1961," AEA. For the discussions at the Ottawa general assembly, see "Report of the 10th General Assembly, Ottawa September 1960," series B2aa, vol. 2, 22, IUPAP Gothenburg.

⁶⁰ See the chapter by Hu, Liu, and Yin in this volume.

⁶¹ Initially the commission had seven members. Two came from the USSR, I. E. Tamm (in 1958 replaced by D. Blokhintsev) and V. I. Veksler; two from the USA, R. E. Marshak and W. H. K. Panofsky (succeeded by E. M. McMillan); one from CERN (C. J. Bakker, succeeded by G. Bernardini); one from Japan (H. Yukawa); and one was French, R. E. Peierls (later succeeded by L. Leprince-Ringue). Minutes of IUPAP High Energy Commission First Meeting, vol. 4; "Fleury's Correspondence 1957-63," folder 29 "Commission on High Energy Physics, Minutes of the meetings 1958-1962," IUPAP, Quebec Secretariat, Center for the History of Science, Royal Swedish Academy of Sciences (hereafter IUPAP Quebec); Position at January 1, 1958. "Report of the Ninth General Assembly (1957)," 11, series B2aa, vol. 1, folder A, IUPAP Gothenburg. See the chapter by Barbara Hof in this volume.

⁶² On the CERN model see M. Kohlrausch and H. Trischler, *Building Europe on Expertise: Innovators, Organizers, Networkers* (London: Palgrave Macmillan, 2014).

⁶³ See Barbara Hof's chapter in this volume.

⁶⁴ Verwey to Mott, December 12, 1957, box 34, folder 1, subfolder 2, "Verbali, documenti," AEA.

would be joint conferences. Mott concluded that it would be up to Amaldi, the next President, to handle the issue.⁶⁵

In 1958, a study Committee on Low Energy Nuclear Physics was created to explore the possibility of also creating a commission on that field of knowledge. The Europeans participated in this committee individually; there was no member from CERN. The members of the committee were G. Djulepov (USSR), B. Flowers (England), Huber (Switzerland), G. Racah (Israel), L. A. Turner (USA), K. Siegbahn (Sweden), and A. Bohr (Denmark).⁶⁶ The future commission would coordinate the organization of international conferences on nuclear energy, but in the committee it was also discussed that the commission could have a broader scope. Kai Siegbahn, the Secretary of the Study Committee, suggested that the commission should assume a more important role: "... some members of the committee have suggested other possible forms of activities, e. g. helping inexperienced countries in deciding upon different kinds of accelerators and reactors."⁶⁷ Siegbahn omitted such remarks from the final report sent to Fleury.⁶⁸ Although Siegbahn's reports suggested establishing a commission on low energies, according to Robert Brode his arguments appeared to the Executive Committee of the Union not strong enough. Interpreting the feelings of the Executive Committee's colleagues, Brode thought that they were unhappy with Siegbahn's work hitherto and suggested to Fleury that Siegbahn be replaced by Flowers.⁶⁹ In 1958 the IUPAP Executive Committee decided not to establish a Commission on Low Energies.⁷⁰ The commission was, however, established two years later.⁷¹

Integrating Asian Physicists

At the Executive Committee in Moscow Amaldi communicated his decision not to continue as President of IUPAP for three years more.⁷² Fleury too wanted to resign, as he thought that someone else should take over. Joffe and Staub asked him to make up his mind.⁷³ Since Amaldi had quitted, Fleury represented continuity with the positive work of integrating communities of physicists of the Socialist bloc and developing countries. As Joffe wrote to Fleury, "*c'est à mon avis une condition indispensable pour que l'Union ne soit pas dispersée.*"⁷⁴ Fleury accepted to remain on the condition that a

⁶⁵ Mott to Verwey, December 17, 1957, box 34, folder 1, subfolder 2, "Verbali, documenti," AEA.

⁶⁶ Siegbahn to Fleury, June 10, 1958, series E1, vol. 4, folder 30, "Fleury's Correspondence 1957-1963. Commission on Low Energy Physics," IUPAP Quebec.

⁶⁷ Ibid.

⁶⁸ "Report of the Committee for Low Energy Nuclear Physics," series E1, vol. 4, folder 30, "Fleury's Correspondence 1957-1963. Commission on Low Energy Physics," IUPAP Quebec.

⁶⁹ Brode to Fleury, October 24, 1959, box 106, folder 6, subfolder 1, "Corrispondenza Fleury 1959-60," AEA.

⁷⁰ Fleury to Siegbahn, July 17, 1958, series E1, vol. 4, folder 30, "Fleury's Correspondence 1957-1963. Commission on Low Energy Physics," IUPAP Quebec.

⁷¹ "Annual Report of the Commission for Low Energy Physics for the period 1962-1963," series E1, vol. 4, folder 30, "Fleury's Correspondence 1957-1963." Commission on Low Energy Physics," IUPAP Quebec.

⁷² Amaldi to Mott, July 28, 1959, box 106, folder 1, subfolder 6, "Corrispondenza Fleury 1959-60," AEA.

⁷³ Staub to Fleury, February 17, 1960, Joffe to Fleury, February 19, 1960, box 106, folder 1, subfolder 6, "Corrispondenza Fleury 1959-60," AEA.

⁷⁴ Joffe to Fleury, February 19, 1960, box 106, folder 6, subfolder 1, "Corrispondenza Fleury 1959-60," AEA.

younger colleague be appointed Adjunct Secretary. Eventually the choice fell on the British physicist Clifford Charles Butler.

Amaldi wanted to change President every three years to assure the involvement of more nations and a balance between Western and Socialist countries.⁷⁵ Amaldi started trading letters with Brode and Mott. It was not just a matter of finding a person with the right qualities. They had to decide the priorities of the Union for the following years. The Union was facing two challenges: the improvement of the recently re-established relations with Soviet and Eastern European physicists, and the integration of the community of physicists of some of the largest Asian countries (China, India, and Japan). As we have seen with the discussion on the adhesion of the two Chinas and the two Germanies, the two issues were intertwined. IUPAP members diverged on which of the two issues they considered the most urgent. Brode proposed to modify the statute to appoint a first Vice-President who would be automatically elected President after three years.⁷⁶ Amaldi endorsed Brode's proposal and in turn proposed that the Executive Committee should comprise the former Presidents, the President, the Secretary, the Vice-Presidents, and a first Vice-President who would become the new President after three years.⁷⁷ Both Amaldi and Mott thought that a Soviet President was desirable, but they were afraid to appoint a Soviet President at that time. Mott wrote to Amaldi that:

I am a bit reluctant to put the presidency in the hands of the representative of a country where the government still exercises so close a control over scientific activities, and in which the western concept of "an independent scientist" is only just beginning to find a place.⁷⁸

Amaldi agreed with Mott. At the time, US physicists were inclined to have a Soviet physicist as President. Brode initially proposed Fleury for President and Tamm (USSR) for Vice-President:

The country with the largest physics activity which has not provided a president is obviously Russia, and it would seem appropriate to consider a president from that country in the near future.⁷⁹

His position mirrored the desire of the US scientific community to interact more with the Soviets. Ferdinand Trendelenburg (West Germany) was also in favor of the Nobel Prize laureate Tamm (USSR) as the first Vice-President.⁸⁰

⁷⁵ Amaldi to Bhabha, May 23, 1960, box 106, folder 1, subfolder 4, "Corrispondenza Presidente 1957-1960," AEA.

⁷⁶ Moscow meeting in AEA, box 106, subfolder 6; see also Staub to Fleury, February 17, 1960, 106, folder 1, subfolder 6, "Corrispondenza Fleury 1959-60," AEA.

⁷⁷ Assemblée Générale d'Ottawa. Ordre du jour provisoire, box 106, folder 1, subfolder 6, "Corrispondenza Fleury 1959-60," AEA.

⁷⁸ Mott to Amaldi, March 9, 1960, box 106, folder 1, subfolder 4, "Corrispondenza Presidente 1957-1960," AEA.

⁷⁹ Brode to Amaldi, July 25, 1960, box 106, folder 1, subfolder 4, "Corrispondenza Presidente 1957-1960," AEA.

⁸⁰ Ferdinand Trendelenburg to Amaldi, June 8, 1960, box 106, folder 1, subfolder 4, "Corrispondenza Presidente 1957-1960," AEA.

In the consultations previous to the General Assembly Amaldi proposed the following scheme to members of the Executive Committee: Homi J. Bhabha (India) President, Fleury (France) Secretary, Butler (UK) Adjunct Secretary, and Smyth (USA) first Vice-President, and three years later to elect a Soviet first Vice-President. Amaldi was inclined to elect a President from one of the two major Asian countries in the Union, India and Japan. Amaldi consulted the Executive Committee. He justified his proposal by the will to maintain a “certain balance between the Eastern and the Western countries,”⁸¹ a very diplomatic formula which made reference to geography only and avoided mentioning political conflicts.

Kotani (Japan) expressed some concerns about Bhabha, because of his position as Secretary of the Indian Government with responsibility for the development of atomic energy in India. Interestingly enough, he motivated his propensity for Joffe (USSR) by saying that “he is not too rigidly bound to the Soviet government.”⁸² Kotani was also concerned that the sequence Amaldi-Bhabha-Smyth entailed too strong a commitment to atomic physics. Herzberg (Canada) too was concerned about Bhabha “because of the many Indian affairs in which Bhabha is involved,” and opted for Yukawa (Japan).⁸³ In the end the General Assembly in Ottawa elected Bhabha President and the French physicist Louis Néel the first Vice-President. As J. de Boer (Netherlands) had written to Amaldi during the consultation process, it was important to keep Fleury as long as possible also because it was crucial to have a bureau in Paris, where UNESCO and ICSU were located.⁸⁴ Maybe this was one of the reasons for choosing a French future President. In 1966, a Soviet physicist, Dimitri Ivanovich Blokhintsev, became President of IUPAP.⁸⁵

Conclusion

Edoardo Amaldi was elected President of IUPAP at a particular moment, in which a number of Western physicists aimed to exploit the favorable conjuncture to re-establish connections with Soviet physicists. Fleury and Mott were persuaded that Amaldi was the ideal candidate to pursue this goal. Amaldi was not only a respected physicist, but also a scientific policymaker with a very clear vision. He had come to the conclusion that Italian physics had to be integrated into the inter-European collaborative projects. It comes as no surprise that the representative of CERN in the IUPAP High Energy Commission was Italian, Gilberto Bernardini. Italian physics could play a part only if integrated into European physics. Otherwise the country was destined to decline. Amaldi’s action and those of other Italian physicists involved in international and inter-European projects mirrored that of the Italian governments.

⁸¹ Amaldi to Rasmussen, April 14, 1960, box 106, subfolder 4, “Corrispondenza Presidente 1957–1960,” AEA.

⁸² Kotani to Amaldi, May 6, 1960, box 106, folder 1, subfolder 4, “Corrispondenza Presidente 1957–1960,” AEA.

⁸³ Amaldi to Brode, May 17, 1960, box 106, folder 1, subfolder 4, “Corrispondenza Presidente 1957–1960,” AEA.

⁸⁴ De Boer to Amaldi, May 16, 1960, box 106, folder 1, subfolder 4, “Corrispondenza Presidente 1957–1960,” AEA.

⁸⁵ See the chapter by Silva Neto and Kojevnikov in this volume.

At the same time, Amaldi conceived of inter-European ventures in terms of peaceful collaborative projects. He promoted peaceful cooperation over other forms of collaboration, such as the contemporary ones in space and satellites research, which were connected to military interests.

Amaldi, Mott, and Fleury sought to integrate socialist countries into the Union. Although they all came from Western countries, they proved to be extremely fair towards their colleagues from the socialist camp. Handling the difficult cases of the “two Germanies” and “the two Chinas,” they showed that their respect for the Union’s principles was beyond political interests. They did not accept pressure from West German physicists to prevent East German physicists from having a proper delegation. Nor did they accept pressure from the People’s Republic of China to exclude Taiwan from the Union. As Amaldi pointed out, writing to Fleury:

Il me semble que les complications naissent aussi pour les deux Allemagnes. Je crois toutefois que l’Union doit tenir une attitude commune pour tous les pays: c’est à dire les représentants des physiciens d’une région qui désirent participer aux activités de l’UIPPA, ils doivent être libres de le faire sans aucune opposition ou interférence.⁸⁶

Amaldi endeavored to implement the idea of peaceful cooperation experienced with CERN as one that could benefit all the partners.

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⁸⁶ Amaldi to Fleury, March 24, 1960, box 106, folder 6, subfolder 1, “Corrispondenza Fleury 1959–60,” AEA.