

Science Networks

Historical Studies

64

Erika Luciano

The Jewish Mathematical Diaspora from Fascist Italy

Looking for a Space of Intellectual
Survival

 Birkhäuser

Science Networks. Historical Studies

Founding Editors

Erwin Hiebert, Basel, Switzerland

Hans Wußing, Leipzig, Germany

Volume 64

Series Editors

Olivier Darrigol, Laboratoire SPHERE, Université Paris Diderot, Paris, France

Peter Ullrich, Mathematisches Institut, Universität Koblenz-Landau, Koblenz, Germany

Editorial Board Members

June Barrow-Green, Walton Hall, Alan Turing Building, Open Univ, Sch of Math & Statistics, Milton Keynes, UK

Umberto Bottazzini, University of Milan, Milano, Italy

Karine Chemla, Lab SPHERE UMR 7219, bâtiment Condorcet, Univ Paris Diderot, Paris, France

Alberto Cogliati, Mathematics, University of Pisa, Pisa, Italy

Sergey S. Demidov, Russian Academy of Science, Institute for History Science, Moscow, Russia

Christophe Eckes, History of science and philosophy, University of Lorraine, Nancy, France

Ralf Krömer, University of Wuppertal, Wuppertal, Germany

Jeanne Peiffer, Centre Alexandre-Koyré, Auberveilliers, France

David E. Rowe, Institut für Mathematik, Johannes Gutenberg University of Mainz, Mainz, Germany

Tilman Sauer, Institute for Mathematics, Johannes Gutenberg University of Mainz, Mainz, Germany

Ana Simões, Edif. C4, Piso 3, Gabinete 30, University of Lisbon, Lisboa, Portugal

Vladimir P. Vizgin, Sciences and Technology, S.I. Vavilov Institute for the History of Science and Technology, Moscow, Russia

This series is devoted to historical studies in the fields of mathematics, physics, and astronomy, including their applications. It is mainly composed of monographs, although it may occasionally include critical editions of primary sources and biographies of important actors. It aims to attract a multiple audience including scientists, historians, philosophers, and graduate students throughout the academic world. Submitted projects are examined by an international and multidisciplinary committee of experts. The publication language is preferentially English, and the diffusion is international.

Erika Luciano

The Jewish Mathematical Diaspora from Fascist Italy

Looking for a Space of Intellectual Survival



Birkhäuser

Erika Luciano
Department of Philosophy and Education Sciences
University of Turin
Turin, Italy

ISSN 1421-6329 ISSN 2296-6080 (electronic)
Science Networks. Historical Studies
ISBN 978-3-031-64895-3 ISBN 978-3-031-64896-0 (eBook)
<https://doi.org/10.1007/978-3-031-64896-0>

Mathematics Subject Classification: 01A60; 01A70; 01A74; 14-03

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2025

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This book is published under the imprint Birkhäuser, www.birkhauser-science.com by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

If disposing of this product, please recycle the paper.

*Agli amori della mia vita: Luca e i nani Ivan,
Amos, David
Nulla è possibile senza di voi.*

Preface

When Italian emigration is mentioned, people generally think of the Great Migration wave that involved 14 million citizens between 1876 and 1915. These included legions of peasants, small landowners, and labourers, mostly from the regions of Southern Italy, who left the country en masse in search of fortune in the United States, South America, and Australia, as well as in other European countries (Belgium, France, Germany, etc.). Sometimes there were young men alone, at other times there were whole families, often very numerous ones. They were the so-called *cafoni* or *pezzenti*: people who sold everything they owned to buy a one-way ticket; individuals ‘not white, but not completely black’, often labelled as *mafiosi*, for whom integration was a challenge and who often preferred to ghetto-ise themselves in Italian neighbourhoods.¹

However, there was also a completely different type of Italian emigration: emigration determined by the anti-Jewish legislation of 1938. Quantitatively and qualitatively, the two are not comparable. The flow of Jewish emigration was minimal, compared to the previous exodus, and affected about 6000 individuals, which constituted 12.7% per cent of the Italian Jewish population in 1938. The number refers to Italian Jewish citizens and does not include the 9000 foreign Jews residing in Italy at the time of promulgation of the *Measures for the Defense of the Race*, who from after 1919 lost Italian citizenship. These emigrants were, predominantly, members of the upper middle class of Central and Northern Italy: artisans, industrialists, owners of commercial enterprises, State officials, skilled workers, and the wealthy and culturally well-equipped class of self-employed individuals (physicians, lawyers, notaries, engineers, architects, etc.). The migrant community was transversal in relation to social, political, and religious orientation and included

¹Immigration from Northern Italy, for example from the Veneto, should not be forgotten. These immigrants were neither peasants nor beggars.

individuals with a bland, if not non-existent, sense of the roots of their identity, belonging to all leanings: anti-fascists and fervent fascists, nationalists and communists, old liberals and socialists, as well as many who had never been involved in politics. Many professed themselves as completely secular, while others had had a religious education but had become non-practicing over time. Very few were orthodox practitioners. A total of 68.2% had contracted mixed marriages and had educated their children either as Catholics or in no religion at all.

Jewish emigration was a form of mass expatriation determined by three factors: a cause of a political nature (persecution); the impossibility of providing for one's self and family, since they could no longer exercise their own professions; the inability to tolerate the loss of civil and political rights along with reduction to a caste of pariahs (social and professional downgrading, marginalisation, the injury to their own dignity as men and citizens, etc.); the urgency of ensuring school education and/or a future career for their children. It was a 'semi-forced' exodus, since the racial laws did not introduce the expulsion from the country of Jews of Italian nationality, officially encouraged by the regime until 1941 (date of the last project to build a Jewish enclave in Italian East Africa) but, in reality, hampered by inefficiency and rampant corruption in the Ministry of Foreign Affairs, embassies, and consular offices.

The emigration took place in three waves: the first and most consistent soon after introduction of the racial laws (in the final months of 1938-September 1939), one of smaller size in the years 1940-1941, with increasingly rushed and perilous departures after the entry into war of Italy (June 10, 1940) and a last wave between October 1943 and the first months of 1944, when, as a result of the Nazi-Fascist occupation, some 4000 Jews fled from mass roundups and deportations to their only remaining land of refuge: Switzerland. The last wave had the typical characteristics of illegal immigration: entry in violation of Swiss immigration laws, recourse to *passeurs* (smugglers) and false identity documents, internment in camps with the status of illegal immigrants and, after an initial period of stay, with that of refugees. In 1942 the migratory flow remained almost stationary apart from the return of some displaced people from abroad to Italy, some family reunifications, and the lucky few who still managed to leave the country.

This exodus had some similarities with the Great Italian migration, which can be summarised as follows. It hinged on networks of intra- and inter-family solidarity, which could be formed and act with remarkable effectiveness by virtue of the small numerical size of the Italian Jewish population. The function and role of these chains were decisive not only on departure, but also on arrival in the host countries. In South America as in the States or in Australia, Little Italy-s were created of Italian Jews, ready to help each other:

These Italian Jews were entirely different. They formed a special emigration. When they arrived, they did not ask for help, and even gave it instead. They knew how to sort themselves out, helping each other. They did not mix easily with the Jews of New York or even with the Italo-Americans. They stayed preferably together, with each other. [...] More or less, they remained isolated. For the Jews they were Italians. For Italo-Americans, they were Jews. For the Americans, they were a subject of wonder and sympathy.²

As with the historical emigration, the Jewish exodus was planned as temporary: those who left were hoping to stay abroad only for a limited period until the repeal of the racial laws (a future event that was simply taken for granted). Like the peasants of the Great Migration, the Italian Jews were also greeted by prejudices, different but equally rooted: the stereotypes of the Jewish Freemason, lobbyist, plutocrat, etc. were affirmed tremendously quickly in Uruguay as in the United States, in Argentina as in Australia.

A very large group of emigrants was made up of intellectuals. The latter were among the professional categories most affected by the anti-Jewish legislation which prevented them from almost any form of activity, both in the public and private sectors. University professors were prevented not only from teaching but also from publishing, from attending institutes and libraries, and from participating in the activities of academies and scientific societies. Journalists were banned from any collaboration, even as freelancers. The theatre, the cinema, and the radio purged all professionals of Jewish origin. Jewish intellectual emigration involved in particular the university, which in 1938 counted 99 university professors of Jewish origin out of 1250, and at least two hundreds of assistants and lecturers (*assistenti, liberi docenti*), often awarded teaching assignments.³ 116 scholars emigrated, including 75 full professors, subdivided by disciplines and by university of provenance as in the tables.⁴ An entire generation of scholars was removed.

²Prezzolini (1950), pp. 249–250: *Questi ebrei italiani erano interamente differenti. Formarono un'emigrazione speciale. Arrivati non si misero a chiedere soccorsi, e persino invece ne dettero. Sapevano mettersi a posto da soli, aiutandosi gli uni con gli altri. Non si mescolaron facilmente con gli Ebrei di New York e nemmeno con gli Italo-Americani. Stavan di preferenza fra di loro. [...] Più o meno, rimasero isolati. Per gli Ebrei erano italiani. Per gli Italo-Americani erano ebrei. Per gli Americani un soggetto di meraviglia e di simpatia.*

³Ventura (1997).

⁴Both the tables derive from the database of the Italian academic refugees given in Appendix of this volume. The list is based on unpublished and published sources (e.g. Ventura 1997; Capristo and Fabre 2018; Guarnieri 2019a and Guarnieri 2019b). All the scholars listed in Appendix are named in at least one of these sources. University of provenance is intended to designate the institution where the scholar was serving at the time the Racial Laws were introduced. The large number of sources used to create the list ensures the completeness and reliability of the information. Occasional omissions or errors cannot, however, be completely excluded.

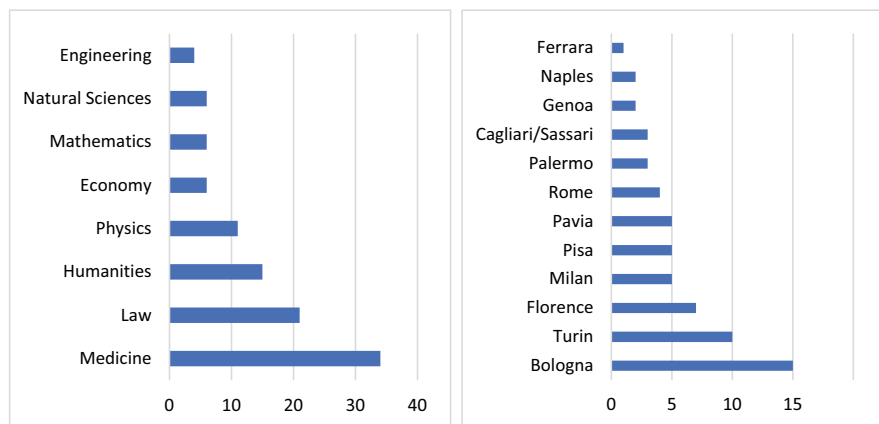


Figure 1 Distribution of émigré scholars according to faculties and to university of provenance

The fact that the percentage of university professors among emigrants was so high is understandable. First, very few scholars could survive without receiving a salary, drawing only on savings and personal assets. The pension granted to the purged professors was in fact very low, except for those who had many years of service seniority. Moreover, for people who had made culture their life mission, the banishment from all scientific arenas and exclusion of their children from any form of education and instruction were intolerable.

Jewish academic emigration from racist Italy has two basic elements of analogy with Jewish emigration tout-court. In the first place, it was also facilitated by networks of solidarity which, unlike links based on family ties and affinities of geographical origin, were grounded on the web of international relations that individual scholars had woven in the years of the Belle Époque of scientific internationalism through congresses, study stays and research trips abroad, the exchange of publications, etc. Cecil Roth recalled with subtle humour, in his *Reminescenze sugli ebrei italiani durante le loro traversie*:

As October 1938 approached, several refugees began to arrive. I remember one of them who told me that, before leaving Rome, he had gone to visit Rabbi David Prato to ask him for a presentation for me. Prato, in taking his notebook of addresses, said to him, “Please wait: I will look in the list of the Elders of Zion”. After the racial laws were established, Jewish refugees from Italy continued to come to England in considerable numbers. In various cases, I was the only Englishman they knew, or with whom they had had some previous contact, or from whom they could get a presentation; and a very large part of them came to visit me and asked me for advice. I was told that this saying circulated: “The first day in Bow Street (to register with the police); the second to the Roths.” As time went by, we made it a habit to set up regular meetings for them every Sunday evening; we tried to introduce them to English Jews – especially those who could help them – and to broaden the circle of their connections, sometimes with great success.⁵

⁵Roth C. (1965), pp. 204–205: *Con l'avvicinarsi dell'ottobre 1938, cominciarono ad arrivare parecchi altri rifugiati. Uno di essi ricordo che mi riferì che, prima di lasciar Roma, era andato a*

In the case of academics, alongside the solidarity chains there were also various international organisations to help the victims of political and racial persecution, such as the Society for the Protection of Science (SPSL) and Learning and the Emergency Committee in Aid of Displaced German Scholars (ECADFS), and philanthropic foundations such as the Rockefeller Foundation and the Guggenheim Foundation which had supported the flight of scholars from Central and Eastern Europe since 1933. Since the end of 1938, not without having to overcome considerable and stubborn internal conflicts, the agencies and the foundations included Italian scholars in their rescue agendas. By contrast, the fact that the vast majority of Italian scholars were made up of ‘Yom Kippur Jews’—i.e., those Jews who enter the synagogue just one time per year, on the occasion of Yom Kippur—meant that the contribution of Italian Jewish institutions assisting migrants was minimal. The scant sympathy that Zionism had gathered among the ranks of Italian university professors—some of whom, indeed, openly rejected it—made the British mandate of Palestine a migratory route of secondary importance.⁶

Academic emigration was also a ‘family affair’, at least for certain disciplines such as mathematics, physics, and physiology. In this case, the family did not constitute blood ties but consisted of the research School. This signified belonging to a collective of scholars engaged in developing a common research project under the guidance of a leader identified as a common mentor or Master (*Maestro*), and sharing political, social ideals, and whole traits of their own personal and work lives. If, as was the case with the above-mentioned disciplines, the research Schools were ethnically homogeneous, teachers and pupils, Masters and protégés emigrated together.

As the emigration of a specific professional sector (that of university workers), academic exodus from racist Italy embodied some peculiar characteristics. The choice between leaving or staying was conditioned not only by individual financial possibilities, but also by the age of the potential refugee, by gender, and by the breadth and effectiveness of the social and relational capital which he/she could raise. Adaptability and flexibility of the migration project were central, as were

far visita al rabbino David Prato per chiedergli una presentazione per me. Prato, nel prendere il suo taccuino di indirizzi, gli disse: “Aspetti che cerco nell’elenco dei Savi Anziani di Sion”. Approvate le leggi razziali, i rifugiati ebrei d’Italia seguirono a venire in Inghilterra in numero considerevole. In vari casi, io ero l’unico inglese che o conoscevano, o con cui avevano avuto un qualche precedente contatto, o da cui potevano ottenere una presentazione; e una grandissima parte di essi venne a farmi visita e a chiedermi consiglio. Mi fu raccontato che era invalso questo modo di dire: “Il primo giorno a Bow Street (per registrarsi presso la polizia); il secondo dai Roth”. Con l’andare del tempo prendemmo l’abitudine di metter su per loro delle riunioni regolari ogni domenica sera; cercavamo di presentarli a ebrei inglesi – specialmente quelli che li potevano aiutare – e di allargare la cerchia delle loro conoscenze; talvolta, con grande successo.

⁶Fano A. (1955). Between July 1938 and June 1940, 504 Italian *olim* arrived in Eretz Israel, of whom 84 left again after a short time, after 1945 or even after 1948. These numbers were confirmed by Della Pergola and Tagliacozzo (1978). Literally, *olim* means ‘immigrants on *aliyah* to Israel’. *Aliyah* (literally ‘ascent’) is a Hebrew term which evokes the ‘return to roots’ that every believer must accomplish, referring to the dispersion of the Jewish people.

prestige, skills, and competences. It was difficult, if not impossible, for a scholar at the beginning or at the end of a career to find a position abroad, unless it were a matter of exceptional talents; men had better chances than their female colleagues, even if occupying equal positions before discrimination; since in 1938 women mainly occupied minor positions in academia (only Anna Foà had won a chair), they had very little chance of taking the path of expatriation. Scholars who for various reasons had remained secluded from international research trends or who had not created strong and continuous relationships with foreign colleagues had almost no prospect of leaving. In particular, those who had scant or distant connections with the English-speaking intellectual world saw their opportunities reduced to a minimum.

The choice of destination depended not only on immigration quota systems and success in obtaining visas and affidavits (from this point of view, faculty members were a privileged category with regard to US immigration legislation, for example) but also on the possibility of finding a university, research institution, laboratory, archive, library, or school willing to hire them. In other words: a general strategy for living and surviving was required. Few university professors demonstrated a willingness to ‘change job’ or had the skills to embark on new professional adventures. Even transfers from academia to other sectors of knowledge workers were not frequent.

The previous relations with fascism of the aspiring expat also influenced the outcome of attempts to leave Italy. While a freelancer or entrepreneur forced to emigrate because of the racial laws was not called upon to document whether he had been fascist, anti-fascist, or a-fascist, a scholar seeking an opportunity abroad was more frequently required to do so, both before departure and after settling in the host country. Often this was not a mere self-declaration about one’s political past or present beliefs, but a choice of field. Suffice it to mention the case of physicists and engineers such as E. Fermi, E. Segré, E. Fubini, U. Fano, etc. who had to decide whether or not to collaborate in Allied research programmes. The inner conflict between loyalty to the homeland and gratitude to the country of adoption, although it may seem over-sentimental to our eyes, was often lacerating.⁷

The emigration of persecuted Jewish scholars in 1938 does not fully coincide with what is usually called the ‘brain drain’. In some ways it was similar, because just like the brain drain that so much worries Italian governments today, it forced two types of scholars to emigrate: people of exceptional talent such as Nobel laureates like Enrico Fermi, emigrated for love because his wife Laura Capon was a Jew, and young people who had just entered the world of research (postgraduate students, lecturers, assistants, etc.) such as the future Nobel laureates Salvatore Edoardo Luria, Franco Modigliani, and Rita Levi-Montalcini. The loss of their human capital in some sectors slowed down, and even halted, Italy’s cultural, technological, and

⁷For some, there was much more involved: the aim to prevent a world war from being won by the ‘forces of evil’. The mere thought of what the world would be like after an Axis victory necessarily prompted which side to be on. This also would result in the liberation of one’s own country.

economic progress, with serious short- and long-term implications. Unlike the classic brain drain, however, Jewish academic emigration involved dozens of university professors and schoolteachers with stable positions who in the normal circumstances of the rule of law would never have thought of leaving.

Jewish academic emigration from racist Italy posed various specific obstacles:

- linguistic difficulties, all the more important for people who worked with knowledge and words, and who wanted to express their thoughts with a certain precision and lexical finesse. In a country like Italy where the learning of English had not been promoted at all by the fascist regime, the language handicap was painfully felt;
- competition with incomers from other totalitarian regimes, and in particular with those fleeing the Third Reich, who in the five years preceding the Italian racial laws had occupied many positions in English-speaking academia;
- the (understandable) perplexities of foreign institutions in welcoming into their staff men who had been notoriously fascist until 1938 and sometimes remained so;
- the embarrassment of the newcomers in interacting with Italians who had left the country before 1938 for political reasons (the so-called *fuoriusciti*);
- the difficulty in entering scientific and institutional contexts characterised by forms, methods, and dynamics of organisation of research and teaching significantly different from the Italian ones (Segré called it ‘the university minuet that one danced at Berkeley, as one did in all universities’.⁸) Globally, it must be frankly said, Italians struggled to adopt new ways of thinking and making culture. They were very able to export their know-how, but rarely re-targeted their profiles to detach from the traditions of study in which they had been trained and in which they had worked until expatriation.

Contextualisation of Research Almost completely ignored by historians for 50 years, Jewish emigration from fascist Italy is a phenomenon still largely to be studied, and all the more so regarding Jewish intellectual emigration. With the exception of a few notes contained in De Felice’s *Storia degli ebrei italiani sotto il fascismo*,⁹ no one dealt with the subject until 1988 when Toscano was the first to establish the quantitative dimension of the phenomenon and some of its global traits.¹⁰ In the nineties, some aspects were explored further: the relationship between Italian Jewish refugees and foreign anti-fascism;¹¹ their contributions to anti-fascist movements such as the Mazzini Society or *Italia Libera*, in specific geographical areas such as the United States, Latin America, and Australia;¹² the exodus to

⁸Segré (1993), p. 133.

⁹De Felice (1961), pp. 284–290, 417–433.

¹⁰Toscano (1988).

¹¹Fanesi (1994); Sarfatti (2007a).

¹²Parshall (2022), pp. 191–231, 297–335; Zevi (1984); Montagnana (1987).

Switzerland during the Nazi-Fascist occupation;¹³ the personal and professional stories of some illustrious displaced scholars.¹⁴ The latter, after all, had been the perspective of a well-known volume by Laura Capon Fermi *Illustrious Immigrants: The Intellectual Migration from Europe, 1930-41*, an engaging and moving book that reads like an adventure novel, and of various autobiographical writings in which the filter of memories and affections hindered, however, any objective evaluation of events and their actors.¹⁵

Overall, the area most investigated in the literature was that of the United States, with works dedicated to the emigration of the Masters, to the presence of women in the migration waves and, recently, a book on the diaspora of Italian psychologists.¹⁶ Meanwhile, historians dealt episodically with the large number of scholars and scientists who emigrated to Latin America, and, to date, there are practically only two contributions: one centred on the encounter of Italian culture with Latin American culture in the years 1938–1945, and one devoted to the ‘undesirables’, that is, the intellectuals who arrived in Argentina to escape racial persecution and whose inclusion in university life was opposed by the Argentine authorities (who were, in some cases, clearly sympathetic to fascism).¹⁷

Already in 2010, Capristo acutely noted two facts: studies were needed on archival sources, focusing on specific academic and professional categories.¹⁸ The eightieth anniversary of the promulgation of the racial laws, re-launching the studies on anti-Jewish persecution in Italy, stimulated new investigations precisely in these two directions. The University of Florence promoted the research prosopography project *Intellectuals fleeing from fascist Italy. Migrants, exiles and refugees for political and racial reasons* and a related website, edited by Guarnieri.¹⁹

Having ascertained that nobody had dealt with the Jewish mathematical diaspora from fascist Italy and inspired by Siegmund-Schultze’s book *Mathematicians fleeing from Nazi Germany* (2009), the rational concept of this book was born. Literature on Jewish mathematical emigration from fascist Italy was basically non-existent. The works related to intellectual emigration mentioned the mathematicians *en passant*, citing only three names (Fubini, Terracini, and Levi), and without exploring

¹³Broggini (1993, 1999).

¹⁴Pontecorboli (2013).

¹⁵Capon Fermi (1968); Colonnetti (1973); Mortara (1985); Bravo and Jalla (1988); Vita-Finzi (1989); Terracini L. (1989); Rosenthal Fuà (2004); Pincherle (2011); Thomson (2014), etc. The work [Terracini L. (1989)] is a critical study of university immigration in Argentina, enriched by personal and friendship memories, from conversations and interviews, and from articles that appeared in local newspapers such as *Los Tucumanos de Italia* (La Gaceta, Tucumán 15.11.1970) and *Los Argentinos de Italia* (La Nación, Buenos Aires, 1.8.1971).

¹⁶Camurri (2009); Gissi (2008) (English translation Gissi 2010); Gissi 2015 (English translation Gissi 2016); Guarnieri 2016.

¹⁷Treves R. (1985); Korn (1988).

¹⁸Capristo 2010 (English translation Capristo 2014), p. 181, 196.

¹⁹Guarnieri ed. <https://intellettualinfuga.fupress.com/>; Guarnieri 2019a.

individual and collective stance in face of expatriation at all. The Italian historians of mathematics and science who first addressed racial persecution and its consequences had focused on other issues: the quantitative dimension of persecution, the implicit and explicit motivations of fascist racial politics, the similarities and differences between anti-Semitic persecutions in Italy and Europe, persecution and gender, etc. Unlike physicists, expat mathematicians had neither given interviews nor produced memoirs.²⁰ Compared with the large and very detailed autobiographical writings by Emilio Segré, Sergio de Benedetti, and Edoardo Amaldi,²¹ only a few pages of the *Ricordi di un matematico* by Alessandro Terracini were available.²² Written many years after the facts, they contained obvious inaccuracies, confusions of dates and people, omissions and misleading information. In obituaries as well as in biographies, the migrant experiences were dismissed in a handful of lines. Some useful information could be obtained from some papers published by their children and grandchildren: the biography of Guido Fubini's son, Eugenio (written by his nephew David), the *Memories of an atomic physicist for my children and grandchildren* (written in old age by Gino Fano's son, Ugo) and the booklet of family memories published by Beppo Levi's daughter, Laura. This is the reasoning behind our choice to work on archival sources mainly, and with the correspondence above all.²³

Turin, Italy

Erika Luciano

²⁰See for example Israel and Nastasi (1998); Israel (2010).

²¹Segré E. (1993); De Benedetti S. (1965); Battimelli and De Maria (1997) (eds.); Battimelli and Paoloni (1998) (eds.).

²²Terracini A. (1968).

²³Fubini D.G. and Brown (2015); Fano U. (2000); Levi L. (2000).

Acknowledgements

This book would not exist without the immense help I received from so many institutions and individuals during the five years of its writing. I have a large number of people to thank heartily.

My gratitude goes first and foremost to the relatives and descendants of the protagonists of this book, who opened the doors of their private archives to me and allowed me to enter their homes and the lives of G. Ascoli, B. Colombo, G. Colonnetti, B. Levi, T. Levi-Civita, G. Fubini and A. Terracini: Cristina Ascoli, Davide Ascoli, Irene Ascoli, Maria Bolgiani, Guido Bolgiani, Paola, and Marco Salbol; Emma Kursner and Marina Colombo Fubini; Margherita Colonnetti; Emilia Levi; Pier Vittorio and Tullio Ceccherini; Laurie Jacobs and David G. Fubini; Benedetto Terracini.

I am also intensely grateful to the Directors and the staff of all the Archives and Libraries who provided me with digital copies of the archive documents, during the lockdown period due to the Covid pandemic and that granted publication rights for various illustrations: Albert Einstein Archives, Hebrew University of Jerusalem; Archive of the Jewish traditions and customs Benvenuto and Alessandro Terracini; Archive of The Society for the Protection of Science and Learning; Archives of the Emergency Committee in Aid of Displaced Foreign Scholars, The New York Public Library; Archives of the National Academy of Lincei; Archive of the National Institute for the Application of the Calculus (courtesy of Dr. A. Celli); Archives of Words, Images and Publishing Communication, University of Milan; Center for Contemporary Jewish Documentation in Milan; Central State Archive; State Archives of Turin; Enrico Persico Archive, Department of Physics, University of Rome La Sapienza; Historical Archive of the Italian Mathematical Union; Historical Archive of the Polytechnic University of Turin; Historical Archive of the University of Genoa; Historical Archive of the University of Turin; Institute for Advanced Study, Princeton, Shelby White and Leon Levy Archives Center, School of Mathematics Records; Oswald Veblen Papers, Library of Congress Manuscript Division, Washington, D.C.; Special Mathematics Library, Department of Mathematics, University of Turin; Swiss Federal Archives; The Caltech Archives.

My special thanks go to Profs. Reinhard Siegmund-Schultze, Christopher Hollings, and Salvatore Coen, who read the first manuscript, and who provided many valuable comments, suggestions, and advice. Their annotated versions are now, and will always be, part of my personal archive!

A huge thank you to Victoria Clifford, for the steadfast patience she always maintained through the process of linguistic revision. Her help was simply invaluable. My deepest thanks also go to Emma Sallent del Colombo, who reviewed the transcriptions of the letters in Spanish, and to Elena Scalambro, for her rereading of the final manuscript and help in its editing.

A heartfelt thank you to the colleagues who invited me to present some chapters of this volume at conferences and workshops that they organised: M. Ash (Prague 2016), Academy of Sciences of Turin (2018), Archivio Terracini (Torino 2018), C. Cattarulla (Buenos Aires 2018), M. Adamson and S. Turchetti (London 2018), Mathesis Torino (2018), M.T. Borgato and C. Phili (Athens 2019), G. Santi (Bolzano 2020), Mathesis Pavia (2020), C. Fontanari (Trento 2021), W. Wójcik (Krakow 2021), Archivio Terracini (Torino 2021), L. Giacardi, R. Tazzioli and Laurent Mazliak (Trento 2021), G. Bini (Rome 2021), S. Despeaux, D. Dumbaugh and J. Lorenat (Oberwolfach 2022); R. Siegmund-Schultze (Aalborg 2023), A. Demuro, T. Préveraud, G. Jouve and R. Tazzioli (Lille 2023), Seminario FINO (Torino 2024). I owe much to the discussions and exchange of thoughts that took place on these occasions, and I profited from them in order to clarify various aspects of my historical reconstructions. Thanks to all the colleagues who, over the years, have discussed the topics addressed in the book with me and, in particular, thanks to: D. Aubin, J. Barrow-Green, D. Ciesielska, C. Ciliberto, A. Conte, H. Durnová, C. Eckes, P. Freguglia, L. Giacardi, H. Gispert, A. Guerraggio, S. Kennedy, M. Marchisio Conte, M. Mattaliano, A. Millán Gasca, R. Nossun, L. Pepe, A. Piazza, C.S. Roero, B. Santirocco, P. Valabrega, and L. Vieira Souza da Silva.

To the Directors of the *Science Networks series. Historical Studies*, Profs. O. Darrigol and P. Ullrich, to the anonymous reviewers, to Drs. S.A. Goob, C. Tominich, F. Trotter, F. Ferrari, and D.I. Jagadisan, I express my sincerest gratitude for having believed in this book project and helped me in every possible way to achieve it.

When Prof. Giorgio Israel passed away, this research project was still only a sketch, devoid of any consistency as only dreams are. Constantly, while I was writing the book, I wondered what he would say about it. Now that the book is finished, I can only hope that he would have liked it. At all events, it has been written in loving memory of him.

Five years of work are also five years of life. Thanks to my family (my husband Luca and our sons Ivan, Amos, David, my father Spirito with Alessandra, my in-laws Laura and Giorgio, Sabrina, Marco, and Chiara, and my nephews Samuele and Niccolò). Thanks to the 'dwarfs' support team': Zia Dada (Silvana Bonda), Elisa

Salonio, and Sara Vietti. Without their invaluable help, without these people who always back and support me, nothing would be possible. Finally, the friends, who surrounded me with affection and made me smile even in the most tiring moments: Chiara and Roberto Dutto, Daniela and Luca Selvini, Gabriella and Lorenzo Tropini-Bassino, Carmela and Walter Donna.

About the Book

The Structure of the Book This book deals with Jewish mathematical emigration from Italy after 1938, and its protagonists are six mathematicians who left the country to rebuild a life abroad (Guido Fubini, Gino Fano, Beniamino Segre, Alessandro Terracini, Beppo Levi, and Bonaparte Colombo), five who tried to emigrate without success (Guido Ascoli, Arturo Maroni, Bruno Tedeschi, Nella Friberti, and Giulio Bemporad), and four who chose to stay in Italy and dedicated themselves to helping colleagues leave and return (Tullio Levi-Civita, Guido Castelnuovo, Federico Enriques, and Vito Volterra). It is structured in two parts, one dealing with the global phenomenon and the other looking at individual destinies. The first part provides a substantial introduction to the topic and is followed by the discussion of six case studies, dedicated to the six immigrant scholars previously mentioned. While allowing space for historical exposition, each paragraph is followed by the relevant, annotated archive documents.

Italian Jews, distinct from Sephardi and Ashkenazi, have a particular history and characteristics, including their own customs and rites (the so-called Italian rite, with its Roman subvariant) and a variety of Judeo-Italian languages such as Bagitto in Livorno and Roman Judaic (*giudaico romanesco*) in Rome. Without taking into account the delicate path traced between the Risorgimento and WWI, from emancipation to assimilation through integration, it is impossible to understand their stances during the fascist rule, and their reactions to religious and racial anti-Semitism. Chapter 1 provides the description of this general historical background, describing the Jewish mathematical micro-society that was created in Italy starting from 1848: a world of scholars, selective but not aristocratic, limited in its interests but fervent; patriotic but also with a lucid, international, cultural conscience; liberal in the best sense, even if not strictly democratic.

The mathematical diaspora from fascist Italy is the result of the *Measures for the Defense of the Race* issued by the regime in the autumn of 1938, since it derives closely from the institutional, epistemic, and social upheavals that they triggered. Italy—it must be said—has come to terms with its history at a relatively late date,

and it was only in 1988 that the Lincei Academy lifted the veil of silence on this chapter. Since then, however, the literature concerning the legal frame of the anti-Jewish persecution, the quantitative dimension, the assumptions underlying the regime's racial policy and its implications for Italian culture and science has been enormously enriched. If it is true that it would be enough to refer to the works of Israel and Nastasi on science and race in fascist Italy, it is equally certain that some basic information on the anti-Jewish persecution carried out by the fascist rule can be useful to the reader. Chapter 2 is dedicated to this topic. Racial laws are here explained in some detail, and the relationships between racial and academic anti-Semitism are discussed at some length, taking into special consideration institutions such as the Italian Mathematical Union and fascist agents such as Francesco Severi and Enrico Bompiani. Due to the fact that for the six mathematicians who managed to emigrate, there were at least 47 others who decided or were forced to stay, we opted to dedicate space to those stories, too (Sects. 2.10, 2.11, Chaps. 4 and 5). Particular emphasis was given to the counter-discrimination procedure, which already at the time seemed incomprehensible abroad and which slowed down Jewish intellectual emigration. The counter-discrimination applications submitted by mathematicians published in Sect. 2.11 provide an interesting picture of how these scholars paraphrased *ex post* their existential, professional, and political trajectories both before and during the fascist twenty-year period and help us to understand the difficulties that they would have met in defining their status as expats for a political cause but not as political exiles in the strictest sense.

Chapters 3, 6, and 7 constitute the core of the book and set out to answer a question that can be formulated in these terms: what features are specific to mathematicians and to mathematics in the phenomenon of Jewish intellectual emigration from fascist Italy? The specific traits of the Italian mathematical diaspora, which differentiate it from other contemporary flights like that from Nazi Germany, can be identified in the following eight points.

It was a diaspora of quantitatively significant dimension, since it involved six professors of mathematical disciplines out of a total of 86 faculty members in service in 1938. The six refugee mathematicians all had a very strong bond with a single University that of Turin, where they had been trained and/or in which they had worked for a number of years, varying from 7 in the case of Beniamino Segre to the 41 of Gino Fano. They were all specialists in a single field, geometry, and they all belonged to a single research School, the so-called Italian School of Algebraic Geometry, founded by Luigi Cremona and brought to international excellence by Corrado Segre, Guido Castelnuovo, Federigo Enriques, and Francesco Severi. The Italian Geometric School, in both its Turin and Roman 'branches', was an intellectual community made up of 60% Jews, including not only university professors, but also middle and secondary school teachers, many of them women.

Jewish mathematical emigration from fascist Italy received little support by international rescue organisations for a variety of reasons explained in the book (Sects. 3.2, 3.3, 3.17, and 3.18). None of the applications submitted to the SPSL and ECADFS led to the awarding of a grant. On the other hand, the role of solidarity networks was pivotal, when planning expatriation, finalising the transfer abroad, and

fitting into new academic environments (Sects. 3.9, 3.10, and 3.11). All the mathematicians fleeing from Italy did so with their families; being linked by family or friendship ties, and/or by the fact of having been fellow students and colleagues, they planned the exodus together. Their emigration was therefore, in a certain way, a family affair (Sects. 3.7 and 3.8). Mutual advice on destinations, tips on how to collect departure documents, tackling the maze of impossible bureaucracy, information on how to prepare an application and how to access a job market that often appeared opaque were all crucial factors in ensuring the success of the expat operation. The Masters, the great names of Italian mathematics who had represented the field abroad since the end of the nineteenth century, mobilised their networks of international connections. For various reasons, Levi-Civita, Castelnuovo, Enriques, and Volterra did not consider leaving but helped their colleagues to do so. Levi-Civita was, in particular, the ‘patriarch’ of mathematicians who were intent on emigrating. The networks of solidarity crossed and reached beyond disciplinary boundaries and generational barriers: those who first succeeded went on to help the others, sensitising foreign mathematicians towards the ‘Italian question’. Oswald Veblen and Max Ascoli in the United States, Julio Rey Pastor, Cortés Pla, and Alfred Rosenblatt in Latin America all facilitated the exodus and resettlement of Italian mathematicians overseas.

Billy Wilder is credited with the somewhat brutal sentence: ‘the optimists died in the gas chambers; the pessimists have pools in Beverly Hills.’ This does not apply to the Italian case. The mathematical diaspora from fascist Italy was not an escape, because in 1938 nobody could foresee that the dispossession of rights would have preceded the deprivation of lives; nor was it a political emigration in the classical sense, because none of the would-be refugee mathematicians had carried out anti-fascist political activity. Theirs was a voluntary shift, a painful step that involved difficult decisions. For this reason, in this book it has been decided to leave some room for discussion of the motivations that led to the choice of whether to stay or leave in search of a space for intellectual survival (Sect. 3.6).

While the United States was the final destination for most of the intellectuals who fled from Central Europe and for other groups of Italian scholarly expats, for Italian mathematicians it was not so. Only Guido Fubini managed to land at the Institute for Advanced Study, thanks to the joint intervention of Levi-Civita and Veblen. The failure of the attempts to find an opening in the US was due to various factors, analysed in Sects. 3.13, 3.19, and 3.20; these factors included competition with mathematicians who had fled from Central and Eastern Europe, a mediocre knowledge of English, and the common style and approach in algebraic geometry typical of the Italian School, which was not universally appreciated in English-speaking countries. The South American route was decidedly more successful: greater linguistic and cultural affinities, the presence of two Italian mathematical missions in Brazil, the long-lasting imprint left by the stays as visiting professors of Levi-Civita and Enriques in Argentina, Brazil, and Peru, and the need to recruit teaching staff for two newly-created Mathematics Departments (Rosario and Tucumán) laid the foundations for a targeted strategy of recruitment of Italians (Sect. 3.15).

Italy's entry into the war and consequent rupture of diplomatic relations with many countries were experienced dramatically by Italian mathematicians who, despite immigration, had continued to feel Italian and had not cut cultural, linguistic, ideal, and affective ties with their homeland. For men who had remained alien to Italian political life, who had not woven any connection with the political expats, nor approached anti-fascist organisations abroad, the transition of status from emigrants to enemy aliens was decisively traumatic (Sect. 3.22). The choice between loyalty to the homeland or to the host country was difficult, especially for the elderly (Fano, Fubini, and Levi). The absence of any trace of denunciation or critique of the fascist rule, in any document, is quite surprising. The mathematicians expressed only words of sorrow, daring amazement and anguish for those who had remained in Italy and for the consequences that the war would have on the country.

In the period of the Nazi occupation and the Salò Republic, out of the forty mathematicians who remained in Italy, five were deported to Auschwitz; two fled to Switzerland and the others lived in hiding. In Switzerland, in the context of a last migration wave made up not only of Jews, but also of anti-fascists, deserters, disbanded soldiers, draft evaders, etc., a teaching experience unique in its genus took place: the creation by the Turin applied mathematician and engineer G. Colonnetti of a University in exile, an internment camp reserved for Italian university students confined in Switzerland. Sections 3.23 and 3.24 are dedicated to this story.

The inclusion of Italians in the new scientific frameworks followed a peculiar dynamic. Under the umbrella of belonging to a unique mathematical School, they imported from Italy into their new settings a way of doing, teaching, and communicating mathematics that was typical of this group (Sect. 6.1). Where, as in Argentina, the conditions made it possible to recreate the Italian models of organisation of mathematical life, their work was widely appreciated and left a remarkable imprint (Sects. 6.3, 6.5, and 6.6). In contexts such as the United States and the United Kingdom, interactions between Italians and local colleagues were much more problematic (Sect. 6.2). In general terms, and with the necessary distinctions, a key component of their commitment was represented by dissemination and popularisation activities, with various cycles of conferences, seminars, broadcast transmissions, and editorial initiatives dedicated to promoting the best Italian mathematical traditions, in the field of geometry specifically (Sect. 6.4).

During their time abroad, émigré mathematicians did not establish relations with local Jewish communities, nor did they acquire or recover a feeling of religious or cultural identity. On the other hand, until the armistice, they maintained contacts with relatives, friends, and colleagues in Italy, even if they were fascists, and they resumed these relationships as soon as possible after the liberation. Upon the repeal of the racial laws (January 1944), all but Levi decided to return (Sects. 7.1 and 7.2). The speed with which they reconnected with their ex-fascist colleagues (Severi, Bompiani, Picone, etc.) and the desire to contribute to the cultural reconstruction of a country that had persecuted them are surprising and have no analogues concerning either émigrés from Central and Eastern Europe or other communities of Italian intellectuals expatriated in 1938.

The backbone of the book is provided by **archival documents**, which have given many new facts and interesting biographical and institutional details on the Italian Jewish mathematicians who chose to play the emigration card. It is a somewhat unique corpus because, until now, nobody had collected such material for any category of scholars displaced from Italy. The documents gathered in the public and private archives of Oxford, New York, Pasadena, Princeton, Turin, Bologna, Rome, etc. amounted to just under 2000, between letters and documents. Making a selection of these was difficult, especially as far as the second part of the book is concerned. Firstly, it was necessary to avoid a difference in treatment between the individuals. Secondly, objectivity and detachment in exposition, fundamental requirements of any historical narrative, were put to the test when, through the reading of the documents, we accessed to the private universe of these people. There are families who opened their homes and archives, who asked me to tell their stories of humiliation and redemption, nostalgia and pride, sense of uprooting, and will for recovery. Others exercised a sort of right to oblivion, sometimes out of prudence, others in order to respect the ‘paternal silence surrounding mortal injuries that was part of an educational strategy intended to contain the right to resentment’.²⁴ In the light of these considerations and starting from the conviction that the duty to document historical theses must never encroach on voyeurism, I excluded a priori all those documents whose contents were eminently private. In the documents selected for publication, I omitted every reference to patrimonial issues, health, and private affairs. The cuts were indicated with [. . .]. Addresses have also been systematically omitted. The documents collected, crossed with other types of sources and integrated into a unitary narrative, have allowed us—we hope—to provide an objective but not unempathetic description of the Italian Jewish mathematical micro-society when faced with persecution and emigration.

The English **translation** of the documents presented various difficulties, both because the dictionary and formulas of fascist rhetoric cannot be properly rendered in another language, and because the protagonists of this book, as members of a School, used a family lexicon whose nuances escape the rigid geometry of scientific language and sometimes pass unnoticed even to the Italian reader. How was it possible to reconstitute the university ‘baron’ prose of Severi (typical of the powerful and famous Italian academics), or the ambiguously mellifluous style of Bompiani, or the boorish anti-Semitic rhetoric of Demorazza’s anonymous reports? We have done our best, but we are under no illusions that we have completely succeeded in our intent. We hope that the decision to provide the Italian text with parallel translation into English will allow a direct approach to the documents for readers who have some knowledge of Italian language and, why not, act as a stimulus to others to approach this language. The critical apparatus of notes is very concise. To avoid repetition, basic biographical information on the persons mentioned in correspondence is provided in the footnotes.

²⁴Terracini Benedetto (2020), p. 100: *Forse il silenzio paterno sulle ferite mortali faceva parte di una strategia educativa intesa a contenere il diritto al risentimento.*

Some clarifications on lexical solutions are necessary. The terms *ebreo* and *israelita*, synonyms in Italian, were translated with *Jew*; the term was used in the sense established by art. II, 8 of racial laws: ‘a Jew is one who was born from both parents of Jewish race, even if he belongs to a religion other than the Jewish one; one who was born from a mother of the Jewish race and from a father unknown; one who, despite being born from parents of Italian nationality, of which only one is Jew, belongs to the Jewish religion, or is enrolled in an Israelite community, or has made, in any other way, manifestations of Judaism’.²⁵ The term *giudeo*, translated into *Juda*, which appears in various documents, is vulgar and derogatory. For semantic and historical reasons, the adjective *razziale* has been translated into *racial* instead of *racist*, corresponding to the Italian *razzista*. In Italian, *racial* means ‘which concerns race, which is based on race’;²⁶ *racist*, on the other hand, means ‘proponent of racism’.²⁷ In official and private documents, moreover, the adjective *racist* almost never occurred. To avoid ambiguity, the two Italian synonyms for Jewish communities (*comunità* and *università*) have been rendered with a single word: *community*. In the text, particular attention has been paid in handling the many terms that indicate the condition of those who leave the country where they were born to move abroad. The term *emigration* (*emigrazione*) indicates this phenomenon in a neutral way; *exile* (*esilio*) denotes a voluntary move for political reasons (persecution); *flight* (*fuga*) indicates a mass and rapid emigration of individuals in a situation of serious risk to life. The term *dispatrio* has not been translated. It defines a condition of the soul and not only of the body: the sense of displacement and loss of roots. A similar polysemy denotes the subjects: *expats*, *émigré*, and *emigrants* (*emigrati*); *exils* and *exiled* (*esuli*), and refugees (*rifugiati*). In the documents, obviously, the terms used by the authors were faithfully translated, even when the lexical choices were improper and even if the semantic shift was neither accidental nor secondary.

Research Methodology This is a research study within the social history of mathematics, encompassing a broad perspective which entangles the institutional and political history and the history of international relations. The approach is mainly descriptive in the first part and prosopographic in the second. Palladio’s digital humanities software seemed appropriate for visualising complex networks of historical data. The typical interpretative tools and categories of the social history of

²⁵ Regio Decreto Legge 17.11.1938, n. 1728 *Provvedimenti per la difesa della razza italiana*, Capo II, Art. 8 *Degli appartenenti alla razza ebraica: Agli effetti di legge: a) è di razza ebraica colui che è nato da genitori entrambi di razza ebraica, anche se appartenga a religione diversa da quella ebraica; b) è considerato di razza ebraica colui che è nato da genitori di cui uno di razza ebraica e l’altro di nazionalità straniera; c) è considerato di razza ebraica colui che è nato da madre di razza ebraica qualora sia ignoto il padre; d) è considerato di razza ebraica colui che, pur essendo nato da genitori di nazionalità italiana, di cui uno solo di razza ebraica, appartenga alla religione ebraica, o sia, comunque, iscritto ad una comunità israelitica, ovvero abbia fatto, in qualsiasi altro modo, manifestazioni di ebraismo.*

²⁶ *Il grande dizionario Garzanti della lingua italiana*, ed. 1987, p. 1568: *che concerne la razza; che si basa sulla razza.*

²⁷ *Il grande dizionario Garzanti della lingua italiana*, ed. 1987, p. 1569: *fautore del razzismo.*

science (namely, the notions of research School, tradition, network, style, circulation of knowledge, vectors of scientific sociability, etc.) have been used without further clarification, according to the authors cited in the footnotes. In particular, according to Rowe (2002) a mathematical School has been defined as a group led by one or more mathematicians, localised within a single institutional setting, and comprising a significant supply of advanced-level students, whereas a mathematical tradition implies that one can find a common research orientation among different actors who do not share a common institutional site, but are linked by traceable influences on each other.

Motives of the Research This research emerged from historical interest and was developed with proper historical purposes, such as the evaluation of the influence that the emigration of Jewish mathematicians had on the scientific and cultural fabric of Italy and of the host nations, and the understanding of the transformations that mathematics has undergone in Italy since the post-war period. Neither of these facts can be detached from the critical knowledge of fascism and racial politics. However, the topic is not of interest for experts interested solely in Italian history of mathematics. In fact, it is not improper to hypothesise a socio-educational implication of this material. The growth of migration flows and the persistent economic difficulties have raised concerns at all levels regarding the return of racist and xenophobic attitudes or position among the Italian population. In the last few years, the monitoring centre of the *Commissione speciale per il contrasto ai fenomeni dell'intolleranza, del razzismo, dell'antisemitismo e dell'istigazione all'odio e alla violenza* vehemently denounced the spread and multiplication of acts of violence and intolerance against those who are regarded as 'different' for reasons of ethnicity, race, religion, gender, sexual orientation, physical and/or mental disability, and fragility. A substantial percentage of these acts took place in schools. Under the assumption that racist preconceptions essentially spring from ignorance, school and out-of-school activities were offered, aimed at exploring and stimulating historical and critical reflection on the concepts of race and discrimination. Accepting the national guidelines *Per una didattica della Shoah a scuola*, elaborated by the Italian delegation of the International Holocaust Remembrance Alliance in 2017, the experts in didactics of STEM disciplines have started to build courses and laboratories on the history of racism and anti-Semitism. Teaching and public engagement activities dedicated to Italian mathematicians who were victims of racial persecution form part of this framework. Since 2017, many schools adhering to the National Project for Scientific Degrees have worked in class on this topic, rediscovering the history and the stories of mathematicians who fled racist Italy.

Contents

Part I The Migration Phenomenon

1	From the Ghetto to the City, and Thence to the Country	3
1.1	Emancipation, Integration, Assimilation	3
1.2	The Three Pillars of Life: Family, Country, and Profession	12
1.3	The Italian School of Algebraic Geometry	15
1.4	The Belle Époque of Scientific Internationalism	24
1.5	The Jews Under Fascist Rule: The Mathematical Community . . .	27
1.6	Italian Mathematicians and Anti-Semitic Persecutions in Central and Eastern Europe	33
	Documents	38
	D1.6.1 W. Adams [Academic Assistance Council] to F. di L. Ravenna, London 7.9.1933	38
	D1.6.2 Anonymous Complaint Against G. Fubini, Turin 7.10.1933	39
	D1.6.3 Comitato Italiano di Assistenza agli Emigranti Ebrei to Academic Assistance Council, Trieste 24.10.1933	40
	D1.6.4 J. Cohen and T. Draper [National Student League] to A. Einstein, Princeton 15.10.1934	40
	D1.6.5 Declaration by G. Ascoli, Milan 1.12.1934	42
2	The Fateful Year 1938: The Persecution of the Italian Jews	45
2.1	Many, Cunning and Powerful: The Words and Tropes of Fascist Propaganda	45
	Documents	48
	D2.1.1 G. Sansone to E. Bompiani, Florence 31.3.1938 . . .	48
	D2.1.2 E. Bortolotti to E. Bompiani, Bologna 8.4.1938 . . .	49
2.2	‘In the Beginning, We Didn’t Understand Where It Would Go’	49

- Rosselli, N., 187
 Rossi, B., 64, 225, 436, 723
 Rota, G.C., 161
 Roth, A., 278
 Roth, C., x, xi, 112, 113, 116, 130
 Roth, L., 26, 238, 255, 329, 376, 378, 428, 451, 452, 565, 579, 580, 590–593, 615, 616
 Rothe, E., 214
 Rouse Ball, W.W., 604, 605
 Roussy, G., 355
 Rouyer, L., 647
 Rovasenda (di), E., 276
 Rowe, D., xxvii, 16, 24
 Rubinstein, N., 118
 Rubinstein, S., 243, 691, 693
 Ruffini, E., 420, 571, 607, 609, 611
 Ruffini, F., 187
 Ruse, H.S., 565, 567, 580
 Russell, H.N., 313, 314, 316, 578
 Rutherford, E., 107, 238
- S**
- Sabin, F.R., 337
 Sacchi, G., 4
 Sacerdote, Adolfo, 443, 444
 Sacerdote, Aldo, 271, 410, 422, 423, 425, 443, 638, 660, 665, 667, 668, 670, 672, 679, 680
 Sacerdote Artom, R., 444
 Sacerdote, C., 444
 Sacerdote, G., 660, 661
 Sacerdote, M., 443, 660, 661
 Sacerdote, R., 444, 463
 Sacerdote Terracini, G., 98, 150, 263, 410, 422, 433, 444, 514, 533, 629, 635, 658, 660, 667, 669
 Sadosky, M., 460
 Sagastume Berra, E.A., 411, 693
 Salinger, E., 111
 Sallent del Colombo, E., 301
 Salmon, C.S., 136, 138, 139
 Salmon, G., 392
 Salmon, P., 375
 Salvadori, M.G., 3, 723
 Salvemini, G., 41, 106, 170, 187, 190
 Salviucci, 359
 Samaja, T., 723
 Sangiorgio, 548
 Sansone, G., 47, 48, 198, 487, 488, 624
 Santaló, L., 370, 371, 374, 411, 639, 683, 689, 692–694, 710, 711
 Sapuppo, G., 79
 Sarfatti, M., xiii, 27, 45, 274, 534
 Sarton, G., 321, 406
 Savorgnan, F., 55
 Saxl, F., 112, 113, 116, 118
 Sayán, P.M.O., 362, 363
 Scalambro, E., 180, 376, 637
 Schappacher, N., 17, 683
 Scherk, P., 221, 223, 235, 236, 334, 335
 Schiavone, L., 313
 Schilling, O.F.G., 337
 Schlesinger, F., 313–317
 Schlömilch, O., 24
 Schmidt, F.K., 197
 Schoof, R., 683
 Schouten, J.A., 78–83, 182
 Schreiber, B., 723
 Schreiber, G., 103
 Schrödinger, E., 214, 215
 Schur, I., 136, 194, 214, 215, 218, 221, 223, 230, 237, 605, 606
 Schwarz, G., 9, 12, 270
 Schwarz, S., 221
 Schwerdtfeger, H., 215, 221
 Sciaky, I., 9
 Scorza Dragoni, G., 473, 475, 600
 Scorza, G., 17, 48, 253, 375, 618, 621, 644
 Scott, D.B., 390
 Searle, N., 107, 108, 562, 565, 581
 Secrétan, R., 281, 289
 Seelye, L.H., 224, 235, 237, 406
 Segal, S.L., 46
 Segré, A., 436, 723
 Segre, Abram, 10
 Segre, Annetta, 17, 19
 Segre Artom, A., 12, 102
 Segre, B., xxi, xxii, 5, 17, 18, 20–23, 48, 56, 57, 62, 71, 78, 82, 87–90, 94–96, 110, 129–130, 138, 147, 151, 153, 162, 169–170, 192, 193, 210–246, 250–266, 269, 271, 275, 298, 299, 324, 332, 367–371, 375–391, 394–402, 405, 407, 410, 414, 420, 421, 427–432, 436, 439–443, 446, 448–452, 455–458, 462, 463, 467–472, 474, 482–488, 491, 492, 501, 524, 531, 532, 538, 551–628, 630, 634, 648, 676, 684, 687, 704, 705, 713, 723
 Segre, C., 5, 7–11, 13, 14, 17–26, 34, 35, 47, 63, 64, 70, 71, 147, 170, 198, 211, 226, 254, 256, 262, 319, 320, 373, 374, 401–404, 409, 414, 534, 535, 541, 551, 629, 642, 644–646, 649, 651–655, 662, 683

- Segré, E., xiii, xv, 22, 64, 162, 436, 723
 Segre Fuà, E., 8
 Segre, G., 153
 Segre, L., 254, 457, 594
 Segre, M., 443–445
 Segre, O., 95, 96, 255, 430, 452, 553, 566, 579, 599, 603
 Segre, Renata, 3
 Segre, Renato, 723
 Segre, Roberto, 13
 Segre, Samuele, 94, 254, 446, 457, 553, 594
 Segre, Sergio, 22, 95, 96, 255, 430, 457, 553, 579
 Segre, Silvana, 95, 96, 255, 430, 457, 553, 579
 Segre, V., 17, 19, 103
 Semple, J.G., 129, 239, 255, 262, 387, 443, 559, 562, 565–569, 572, 577–579, 582, 586–588, 633, 634
 Senigaglia, Emma, 103
 Senigaglia, Ermanno, 12
 Serao, M., 174, 176
 Sereni, A., 436, 723
 Sessa, G.E., 286
 Severi, A., 276
 Severi, F., xxii, xxiv, xxv, 17–19, 22, 23, 26–30, 32, 37, 46, 71–82, 95, 170, 178, 183, 196–199, 201, 205, 207–210, 227, 238, 241, 247, 253–257, 261, 266, 276, 301, 302, 324, 375–379, 382, 389, 391, 396, 401, 407–409, 420, 427–432, 439–442, 446–457, 467–476, 487, 488, 502, 526, 531, 535, 551–554, 557, 573–576, 587, 590, 597–628, 641
 Shapley, H., 119, 120, 168, 170, 188, 213, 216–218, 222, 224, 225, 229–232, 235, 268, 272, 273, 313, 317, 578
 Shohat, J.A., 182
 Sibirani, F., 305, 307
 Siegel, C., 79, 214, 236, 240
 Siegmund–Schultze, R., xiv, xviii, 26, 37, 110, 161, 194
 Sierpiński, W., 70, 224, 247
 Signori, E., 27, 301
 Signorini, A., 73, 422, 472, 619, 622, 624–627
 Silbermann, P.A., 115, 244, 245
 Simili, R., 324, 325
 Simone, G., 177
 Simpson, E., 107, 108, 112, 113, 116–118, 239, 240, 251, 252, 563, 565–568, 583–585, 634
 Sisam, C.H., 25
 Sisam, K., 378–380, 382–383, 389, 396–398, 569, 589
 Sittignani, M.G., 12
 Skemp, J.B., 455, 559, 572, 573
 Snyder, V., 26, 162, 169, 170, 192, 211, 216, 254, 262, 337, 378, 381, 455, 557–560, 562–564, 567, 569, 570, 576–578, 633, 638, 662–665
 Sobrero, L., 242
 Somigliana, C., 32–35, 47, 48, 135, 254, 275, 530, 537, 713
 Somerville, D.M.Y., 392
 Sossi Ascoli, M., 294
 Speiser, A., 182, 474, 476, 531
 Spencer Jones, H., 315
 Sperner, E., 80
 Sperry, P., 252, 633, 634, 655
 Spiegel, G., 103
 Spingarn, E., 189
 Springer, F., 194–197, 201–204
 Sretzensky, L.N., 182
 Stein, F.M., 108
 Steindler, A., 103
 Steiner, J., 404, 537, 642
 Stepanow, W., 182
 Sternberg, W., 221, 235
 Stone, M., 217, 478, 481, 637, 665
 Stoneley, R., 594
 Störmer, C., 182
 Stouffer, E.B., 337, 655
 Strauss, E., 244, 245
 Strehler, G., 279
 Struik, D., 26, 182
 Stucky, A., 281, 289
 Sturzo, L., 322
 Supino, G., 239, 243, 250, 251, 277, 279, 327, 343
 Süss, W., 80, 194–197
 Sutton, G., 258
 Synge, J.L., 79, 182, 202, 203
 Szegő, G., 477, 481
 Szegő, L., 277, 279, 723
 Szilard, L., 107
- T**
- Tabet, D., 723
 Tagliacozzo, C., 723
 Tagliacozzo, Emilia, 7
 Tagliacozzo, Enzo, 188, 190
 Tagliacozzo, S., xi
 Tamarkin, J.D., 182, 196, 199–201
 Tamaro, A., 13, 14
 Tanturri, A., 17
 Tarski, A., 223, 236

- Tazzioli, R., 9, 23, 26, 29, 31–34, 50, 85, 134,
 135, 154, 179, 196, 410, 485, 492–495,
 635, 687, 688
 Tedeschi, Arrigo, 669
 Tedeschi, Aurelia, 669
 Tedeschi, B., xxi, 62, 103, 147, 211, 250, 266,
 274, 293, 302–310
 Tedeschi, Ermanno, 669
 Tedeschi, Erminio, 303, 304, 307
 Tedeschi, G., 283, 436, 723
 Tedeschi, M., 632
 Teglio, E., 103
 Ten Broek, 331
 Terracini, Alessandro, xiv, xv, xxi, 12, 13, 15,
 17, 26, 27, 32–35, 56, 57, 61, 62, 85–88,
 90, 97, 98, 102, 147, 153–155, 164, 180,
 192, 193, 210, 213–216, 218–222,
 226–230, 238, 239, 242–246, 248, 250,
 252–254, 257, 258, 261–263, 266, 267,
 269, 271, 272, 275, 279, 298, 324, 332,
 367–375, 381, 401–415, 419–427,
 432–444, 456, 459, 460, 463, 467–469,
 476, 478, 485–489, 491, 501–506, 509,
 510, 514–516, 523, 532, 533, 537, 538,
 542, 557, 563, 594–597, 606, 614, 616,
 629–682, 692, 693, 709, 710, 713, 724
 Terracini, Amadio, 669, 670
 Terracini, Benedetto, xxv, 148, 630, 638
 Terracini, Benvenuto, 4, 12, 66, 85, 97, 154,
 408, 424–427, 463, 479, 482, 515, 631,
 632, 636, 658, 661, 662, 666–670, 710,
 711, 724
 Terracini, C., 98, 148, 263, 433, 630, 632, 658,
 666, 668
 Terracini, E., 424, 441, 479, 482, 636, 666, 667
 Terracini, I., 7
 Terracini, L., xiv, 85, 98, 148, 263, 271, 433,
 442, 630–632, 658, 660, 661, 666, 668
 Terracini, U., 279, 669, 670
 Terradas, E., 50, 182–184
 Thaaon of Revel, P., 94, 96
 Thirring, H., 214, 215, 218, 221, 222, 228, 229
 Thomas, J.M., 569
 Thomas, T.Y., 182, 264, 265, 510, 557
 Thomas, W., 168
 Thomson, D.C., 107, 108, 113, 129, 130, 166,
 251, 540–542, 559, 577, 579, 634
 Thomson, I., xiv
 Thomson, J.J., 412
 Thouzellier, É., 348
 Tibal, 51, 52
 Tillich, P., 168
 Tittoni, T., 74
 Toaff, R., 724
 Todd, J.A., 376, 378–384, 386–391, 394–402,
 531, 565–568, 571, 579, 580, 582–585,
 587, 589, 590, 592, 594, 601, 604, 608,
 609
 Toeplitz, O., 214, 215, 221
 Togliatti, E., 17, 72, 374, 442, 630
 Togliatti, P., 459, 639
 Tommasi, A., 288, 289
 Tommasini, O., 14, 15
 Tonelli, L., 48, 73, 81, 178, 294, 298, 423, 425,
 433–435, 437, 474, 475, 623, 624
 Toni, S., 693
 Toranzos, F.I., 411
 Torelli, R., 17
 Toscanini, A., 41
 Toscano, M., xiii
 Treves, A., 660, 666, 667
 Treves, B., 13, 28, 49, 50, 69, 85, 148
 Treves Colombo, A., 150, 714, 715
 Treves, E.E., 530
 Treves, M., 251
 Treves, P., 188
 Treves, Renato, xiv, 85, 184, 185, 242, 408,
 444, 518, 724
 Treves, S., 239, 250
 Trevisani, C., 15
 Trevisani, Levi–Civita, L., 15, 36, 100, 178,
 179, 181, 183, 194, 331
 Tricomi, F.G., 31–35, 72, 135, 194–210, 329,
 439, 451, 452, 459–463, 467, 476–481,
 487, 488, 502, 538, 573, 596, 597, 630,
 632, 633, 639, 649, 666–668, 710, 711
 Turley, J.P., 362, 363
 Tuve, M., 544, 545
 Tzitzeica, G., 644, 646

U
 Ulich, R., 168
 Ulivi, N., 243
 Ullrich, E., 196, 199, 204–207
 Ulman, G., 304, 307
 Umberto II, 459
 Ursell, I.J., 483–485, 574
 Usiglio, G., 724
 Uspensky, J.V., 411, 693

V
 Vacca, G., 70
 Valiron, G., 693
 Vallauri, G., 66–69, 77, 493, 497, 499

- Vallée Poussin (de la), C.J., 79
 Van Vleck, E.B., 25
 Vargas, G., 242
 Veblen, O., xxiii, 25, 79–83, 109, 122,
 136–138, 154, 156, 160, 161, 164, 168,
 169, 177, 182, 187, 191–194, 196, 197,
 201–204, 213–219, 222–225, 227–229,
 231–234, 237–240, 258, 259, 262–267,
 269, 271, 272, 297–299, 313–317, 324,
 326, 329–341, 345, 346, 351, 354,
 360–363, 368, 375, 381, 389, 392, 410,
 413, 414, 492, 495–501, 506–510,
 557–564, 567–569, 575–578, 633, 634,
 638–641, 655, 656, 662–665
 Veblen, T., 191
 Vecchiotti, G., 498, 499
 Ventura, A., ix
 Ventura, L., 33
 Vercelli, C., 45
 Vercelli, F., 310
 Veronese, G., 17, 34, 535, 537, 617, 641, 645
 Verra, A., 531
 Vieira Souza da Silva, L., 241
 Vigna, L., 4
 Vigna, N., 124, 497, 498
 Vignaux, J.C., 183, 184, 241, 243, 411,
 686–687
 Villa, M., 486, 574
 Villat, H., 182, 345, 353
 Vinassa, P., 301, 302
 Viola, T., 72, 328, 329, 683
 Viriglio, L., 17
 Visco, S., 55, 83, 84
 Vita–Finzi, P., xiv
 Vitale Dalmonte, G., 444, 660, 669, 670
 Viterbi, A., 7, 12
 Viterbo, C., 436, 702, 703, 724
 Viterbo, D., 225
 Viterbo, E., 6
 Vivanti, G., 7, 33, 34, 37, 62, 95, 145, 295
 Vodoz, A., 284
 Voigt, K., 27
 Volpe, G., 32
 Volta, A., 35, 47, 72–84, 192, 197, 473, 475
 Volta, L., 313
 Volterra, A., 340
 Volterra, Edoardo, 56, 80, 87, 122, 145, 153,
 154, 170, 180, 190, 192, 211, 257, 259,
 269, 341, 344–350, 360–363, 440, 595,
 596, 724
 Volterra, Enrico, 87, 122, 153, 154, 185, 186,
 192, 239, 243, 250, 259, 266, 269, 332,
 333, 341–345, 350, 351, 354, 356–358,
 364, 566, 580, 688, 724
 Volterra, G., 89, 99, 100, 211, 259, 341, 342,
 344
 Volterra, L., 64, 148, 259, 339, 341, 342, 344,
 619
 Volterra, M., 724
 Volterra, V., xxi, xxiii, 5, 7, 9–15, 21–25, 29,
 31, 37, 46, 51, 52, 54, 56, 58, 64, 78, 80,
 87–92, 99–100, 106, 107, 114, 115, 122,
 145–148, 153, 154, 161, 162, 170, 179,
 185, 192, 211, 241, 248, 257–261, 271,
 275, 277, 306, 311, 322, 325, 326, 332,
 339–365, 371, 372, 412, 492, 506–508,
 534, 566, 580, 596, 619, 622, 693
 Vranceanu, G., 78
- W**
 Waerden (van der), B.L., 26, 79, 375, 377, 380,
 381, 383, 397, 399
 Wanach, B., 315
 Warburg, A., 113, 115–118
 Warburg, E.M.M., 189, 190
 Warburg, F., 108
 Ward, A.J., 572
 Ward, D.R., 392
 Wasow, W.R., 37, 134, 136–139, 214, 215,
 225, 266
 Wasow–Brill, G., 139
 Wataghin, G., 241, 242, 381
 Watson, G.N., 182, 568
 Wavre, R., 182
 Weaver, W., 204, 223, 235, 237, 263
 Weil, A., 26, 223, 236, 570
 Weinstein, A., 223, 235, 236
 Weiss, E., 103
 Weyl, H., 136–139, 177, 182, 191, 213–219,
 222–225, 228–232, 235, 237–240, 263,
 317, 334–337, 501, 563, 578, 638, 664
 White, F.P., 565, 579, 580
 Whitehead, J.H.C., 238
 Whittaker, E.T., 51, 79, 182, 341, 472, 613, 614
 Whyte, J.H., 108
 Wiener, A., 140
 Wieruszowski, H., 115
 Wilczynski, E.J., 211, 373, 642, 644
 Wilder, B., xxiii
 Wilks, S.S., 136
 Williams, B., 108
 Williams, K.P., 182
 Winternitz, A., 215, 219, 221
 Wintner, A., 182, 693
 Wisard, F., 274
 Witschi, E., 326, 333, 338, 339
 Wollemborg, L.J., 188
 Wollemborg, Leone, 527