

---

## Introduction: The Latin Sisters and Mathematics

Frédéric Brechenmacher, Guillaume Jouve, Laurent Mazliak and Rossana Tazzioli



---

F. Brechenmacher  
Ecole Polytechnique, Palaiseau, France  
e-mail: frederic.brechenmacher@polytechnique.edu

G. Jouve  
Université d'Artois, Arras, France  
e-mail: guillaume.jouve@espe-lnf.fr

L. Mazliak (✉)  
Université Pierre et Marie Curie, Paris, France  
e-mail: laurent.mazliak@upmc.fr

R. Tazzioli  
Université Lille 1, Villeneuve d'Ascq, France  
e-mail: rossana.tazzioli@math.univ-lille1.fr

*O sisters ! your heart is the eternal Host  
 Whose fecundity in itself humanity feels!  
 As this Sordello named by Dante  
 Give again, always, your beloved ideal  
 To nourish the charmed world  
 I see in your sky this original star  
 The symbol of every light  
 The one who saluted Greece at its beginnings  
 And who promised the world to the Latin ideal<sup>1</sup>*

The somewhat grandiloquent words of the previous poem, written by the French writer Jean Aicard (1848–1921), are a tribute to the visit of the Italian sovereigns to Paris, an important diplomatic event organized in 1904 to mark the rapprochement between Paris and Rome. These words express a major rhetorical argument used at the beginning of the 20th century to justify the alleged proximity between Italy and France: the Latin ideal, heir of Greek classical wisdom, considered as a counterweight to other cultural influences in Europe, primarily the German influence. Since the end of the 18th century, tales about barbarian invasions led to new reflections about the distinction between the Roman civilization and barbarism. Expressions such as “Latin language” and then “Latin race” appeared during the 19th century, and publications related to various research areas followed where the word “Latin” is opposed to Barbarian or Germanic.<sup>2</sup> In the first years of the new century, Italy was accepted by her transalpine neighbour as a partner, unavoidable to be, if not already equal, and this may be seen for instance through the increasing interest of French academics or students in Italian intellectual production, as was illustrated by Antonin Durand’s text introducing this book.

That was also true for mathematicians. The mathematician Vito Volterra (1860–1940) was much involved in the effort of developing cultural relations between Italy and France from the beginning of the 20th century— Italian-French associations and journals, exchanges of students, and invitations of scholars.<sup>3</sup> Volterra used his relevant political and institutional responsibilities for increasing this kind of activity. Italian and French mathematicians regularly evoked Latin ideals with reference to Italy and France. Such rhetoric attained a peak during the Great War when it was recurrently used as a motto for propaganda, especially during the nine month period when Italy was neutral. In a letter to his French colleague Gaston Darboux (1842–1917), Volterra wrote on 7 September 1914:

<sup>1</sup>Vous, ô soeurs! Votre coeur est l'hostie éternelle / Que l'humanité sent féconde en elle ! / Comme ce Sordello, que le Dante a nommé, / Donnez encor, toujours, votre idéal aimé / En pâture au monde charmé./ Je vois dans votre ciel cette étoile première, / Symbole de toute lumière / Celle qui salua la Grèce à son matin / Et qui promet le monde à l'idéal latin.

<sup>2</sup>An essay on latinity in Europe that focalises on cultural relations between France and Italy during the Fascist regime is (Fraixe et al. 2014).

<sup>3</sup>(Mazliak and Tazzioli 2009), especially pp. 181–184.

I think Italy must take its place next to her Latin sister, France, and its allies against Austria and Germany. This is its role and mission.<sup>4</sup>

An echo came from France a few months later, when the Alsatian mathematician Paul Appell (1855–1930) wrote to Volterra on 13 January 1915:

We see with great pleasure, in France, that we have the sympathy and moral support, pending the loving cooperation, from the noble Italian nation that has known and still knows the Austrian oppression, as we have suffered the German oppression in Alsace and Lorraine. Italy, like France, [...] a civilization of freedom, justice and humanity...<sup>5</sup>

Both quotations paint the picture of France and Italy as two Latin sisters struggling for freedom and justice against the Barbarian invaders.

That was a remarkable evolution after many years of a difficult relationship between Italy and France in the last part of the 19th century. Italy, as an independent country, was a newcomer on the European stage. The kingdom was born in the 1860s and completed its unification after the suppression of the Pope's states with the conquest of Rome in 1870. Due to a mixture of political pragmatism and the sloppiness of French diplomacy, Italy in the 1880s chose to turn her gaze towards the other newly arrived political entity of the European concert, Germany. The latter had just severely defeated France and had undergone formidable development since the 1820s. During the fifteen years between 1881 and 1896, and especially when Francesco Crispi was Prime Minister, Italian "Gallophobic" politics was openly close to Germany and hostile to France.<sup>6</sup> A Triple Alliance between Germany, Austria-Hungary and Italy was signed in 1882. Italy sought support against France in order to be able to start her colonial policy shortly after having given up her North-African ambitions in Tunisia to the French.<sup>7</sup> The political and cultural model the Italians tried to follow was that of Germany.

The Italian attitude towards Germany was often depicted by the French press during this period. Italy's politics were officially displayed in France as treason, in light of the help the French offered in the fights of the Risorgimento. Moreover, social backwardness generated an important emigration of poor Italian workers, especially to the south of France and social tensions were important. Some dramatic events, such as the murder of several Italian workers in the "salines of Aigues-Mortes" in 1894 on a background of severe competition for employment

<sup>4</sup>The letter is kept in Volterra's Archive, Biblioteca dell'Accademia dei Lincei, Rome. The original French is: « A mon avis l'Italie doit prendre sa place à côté de sa sœur latine : la France, et de ses alliés contre l'Autriche et l'Allemagne. C'est son rôle, et sa mission ».

<sup>5</sup>Letter by Appell to Volterra (in Volterra's Archive, Biblioteca dell'Accademia dei Lincei, Rome). The original French is: « Nous voyons avec grand plaisir, en France, que nous avons les sympathies et l'appui moral, en attendant la coopération affectueuse, de la noble nation Italienne qui a connu et qui connaît encore l'oppression autrichienne, comme nous avons subi l'oppression allemande en Alsace et Lorraine. L'Italie, comme la France, [...] une civilisation de liberté, de justice et d'humanité... ».

<sup>6</sup>Concerning Italian policy towards France in the late part of the 19th century see for instance (Pécourt 1997).

<sup>7</sup>On Italian colonial policy see for instance (del Boca 1976).

between local and foreign workforces and a violent thrust of xenophobia, contributed to make the situation all the more difficult.<sup>8</sup> Crispi's fall in March 1896 after the Italian defeat of Adua in Abyssinia and the subsequent rapprochement with France inaugurated a new era in the relationship between the two countries, celebrated in 1904 by the ceremonies mentioned above.

The construction of the French perspective on new Italy after the Risorgimento has become an important theme in cultural history after Pierre Milza's thesis in 1982.<sup>9</sup> Milza describes how the collective mentality in France about Italy evolved between rejection, sympathy and attraction over fifty years. Italy's own cultural construction was caught in the crossfire of German and French influences, both being rather strong in the country though, as said before, the former was certainly more efficient. As Milza remarks, at the turn of the century, German philosophy, especially Neo-Hegelianism and Nietzschean ideas, were strongly represented in Italy, as well as German studies in history and philology. However, Italian cultural presence in France was rather scattered. Even in 1914, when he had to write a report for the David-Weill foundation about his travel grant, the young mathematician René Gateaux (1889–1914) rightly regretted that Italy and the Italian language were so poorly known in France while, on the other hand, France and French were widely present in Italian society.<sup>10</sup>

Yet, Milza observed an increasing number of scientific missions by French academics to Italy from the 1880s, a proof that the new country was gradually being considered with greater attention.<sup>11</sup> However, it is worth observing that the academics (*savants*) considered by Milza in fact only include archaeologists, geographers or physicians. Mathematicians (and other scientific specialists such as physicists or biologists) are totally absent from his considerations. Christophe Poupault's remarkable study on the travels of the French to Italy during the Fascist period has the same limitation.<sup>12</sup> In general, it was above all the literary specialists who benefited from an investigation by the historians of international politics. In his thesis, Angelo Morabito provides a fresh image of post-Risorgimento Italy in France by focusing on Italian heroes, such as Mazzini and Garibaldi, and the most beloved writers and poets in France.<sup>13</sup> Much remains thus to be done to explore how other actors of the French intelligentsia met the appearance of this new partner beyond the Alps.

<sup>8</sup>(Noiriél 2010). The author writes that this massacre was the most important «pogrom» in contemporary French history (p. 9).

<sup>9</sup>(Milza 1981). Milza studies the image of Italy and Italians in the collective mentality of the French through three main vectors: travel diaries in Italy, daily press, school textbooks (see in particular, vol. 1, pp. 354–473).

<sup>10</sup>See (Mazliak 2015).

<sup>11</sup>Travel diaries concern all Italy, but especially Sardinia, Pompei, and Sicily; see (Milza 1981) note 8, pp. 343–345.

<sup>12</sup>(Poupault 2011).

<sup>13</sup>(Morabito 2012).

On the French mathematical scene, Italy was also considered as being distant at the beginning. Some clear-sighted personalities seemed however to realize as soon as in 1870 that in Europe, the powerful German mathematical community and the quick Italian mathematical development represented a major challenge for French mathematicians who, since the legendary times of Napoleon, thought themselves placed at an unreachable height. Gaston Darboux, for instance, wrote in 1870 to Jules Houël (1823–1886) that the Germans clearly surpassed the French on the mathematical scene and that if things would continue in that way, the Italians would soon do the same.<sup>14</sup>

Many documents prove the self-consciousness of Italians about their new importance in European mathematics at the turn of the century. In his analysis of the evolution of mathematics in Italy since 1839, during the first congress of the SIPS in 1907 Valentino Cerruti (1850–1909), a professor of rational mechanics at the University of Rome, provided an enthusiastic picture of the situation:

It has often been lamented that in Italy it was never possible to create a mathematical tradition, or that continuity was missing even when some great mind succeeded in generating love for studies of geometry. This fact, true to some extent, has many causes that have been said and repeated many times. But among them, there is a very simple one that has exerted and can still exert an even greater influence than one usually mentions. In a poor country, where motion and transformation of wealth are reduced to minimal proportions, where the main problems on which prosperity and power of the state depend are not dealt with, the practical usefulness of mathematics does not go beyond the most essential elements of everyday life and the interest for higher and secret questions can only be cultivated by a few privileged minds. This was the situation in Italy in the first half of the nineteenth century. But things are different today. The fantastic industrial renewal, the colossal works for the arrangement and the establishment of air, land and sea communications, the rebirth of building construction, the exploitation of natural energy in all its forms, the organization of the great services of the State, the creation of new economic institutions to cope with the continuous social changes required and still require solving complex problems, for which the use of mathematics in their most subtle dimensions is so necessary and valuable that many people must get a scientific training in order to use science as a means and not as an end. These technical imperatives have in turn a positive impact on defenders of science for itself, both because of the direction they give to their research and because of the improvement of the working methods. Indeed, abstract mathematics in the new life of Italy no longer represents only a ceremonial or decorative doctrine, but has become a valuable economic factor. One may hope that the climb that has lasted for more than half a century with great success would not slow down but would go on and increase with new vigour. Our Company will reach this aim by gathering and organizing studies and researchers. At the beginning, it aimed to form a national political awareness. It pursues now an ideal no less noble and better suiting its character: creating a national scientific awareness.<sup>15</sup>

<sup>14</sup>The undated letter is contained in Dossier Houël, Archives de l'Académie des Sciences in Paris, and published in (Gispert et al. 1987). In particular, the following passage of the letter is significant: « Je pense que vous êtes du même avis, les Allemands nous enfoncent par le nombre, là comme ailleurs. Je crois que si cela continue les Italiens nous dépasseront avant peu. » (p. 160).

<sup>15</sup>(Cerruti 1907) (p. 106–107 for the quotation).

It was however difficult for the French audience to look with new eyes at Italy and without a priori considerations dictated by the traditional role devoted to the country: a museum, keeping the treasures of Antique or Renaissance culture, and also a conservatory for the Roman Catholic church, though the complicated relationship between new Italy and the Papacy induced contradictory feelings on that matter.

To what extent latinity, whatever this rather vague concept meant for those who used it, had played a positive or a negative role is an interesting point. Clearly used for propagandistic purposes during the Great War, as already mentioned, the term was also used before to mark the distance between the two countries. In the national legend forged in the 19th century, if France could obviously not refuse to Rome the privilege of having brought its civilization to the Gauls the subsequent evolution of French culture was mostly due to other factors. In this vision, in contrast to Italy, latinity in France had been adapted by people from other cultures and mixed with a creative efficiency. This produced what the French thought to be the *golden proportions* of French classicism. Moreover, a cult for centralization had been developed among the French elite at least since the 17th century and was considerably enforced during the Revolution; in contrast the Peninsula contained many urban centres, Florence, Turin, Venice, Naples, Palermo and of course Rome—though the presence of the Papacy created there a complex and delicate situation— and this seemed to be counterproductive for the diffusion of science. It was on the whole not a very favourable situation for the development of a new view on the recent Italian evolution.

It took generally quite a long time for the French to regard their transalpine neighbour as a modern country, with modern economy and interests in modern research, in particular science, including mathematics. It seems quite possible to adapt, *mutatis mutandis*, what Christophe Roux writes about the French view on Italian political sciences after World War 2 to the situation in mathematics during the 19th century considered in the present book.

Only by a seeming paradox, that feeling of closeness has nevertheless not induced an attempt for an exhaustive knowledge of her transalpine neighbour in France. The universal admiration for Italian culture has indeed produced different effects in different countries. The Anglo-Saxons—a central reference due to their international leadership in most branches of humanities and social sciences, including political science—have shown their fascination for the country by strongly promoting scientific knowledge, as exemplified by the numerous groups of historians, anthropologists and researchers in political science that had been sent to the Peninsula, even though some of them may have come there with political matters in mind, particularly during the Cold War. In France, there was generally no fascination for some figure of radical alterity, but on the contrary a feeling of proximity fed by intuition, which did not prompt to explore her neighbour further. From that situation partly stems the gap between the impression of knowing and the relative lack of knowledge.<sup>16</sup>

The present book deals with the question of the new view from the French side on Italian mathematics during and after the Italian unification in the 19th Century.

---

<sup>16</sup>(Roux 2003).

Mathematics had played a specific role in France for years, and the astounding prestige of the French mathematicians of the beginning of the 19th century (with names such as Laplace, Cauchy, Poisson and so many others), as mentioned earlier, reassured their successors of the dominant position of the French mathematical school on the European stage. The shock of the defeat in the Franco-Prussian war in 1870 forced many of them to admit the formidable expansion of German science. As it is clear from Darboux's letter we quoted above, at that time, the question was raised to foresee to which height the Italian mathematical community was able to climb. The chapters of the book provide various examples illustrating how French mathematicians gradually became aware of what was happening beyond the Alps.

The present publication is based upon the contributions to a conference held in Lille and Lens (France) in November 2013, which was devoted to images of Italian mathematics viewed from France, during the period starting just before the Italian Risorgimento and lasting until the stabilization of the fascist regime (roughly from 1815 to 1928, a little more than a century). Though several works on mathematical relations between France and Italy have already been published, they generally concentrate on how French mathematics were a model for Italian mathematicians—the French model concerning not only mathematical research, but also sometimes French institutions. Examining in detail how French mathematicians looked at Italian mathematical research, as well as Italian universities, institutions, scientific journals and conferences, helps giving a more faithful picture of some episodes in the history of mathematics. French mathematicians were inspired by the research developed in the peninsula on several occasions, and from this emerged a subtle network of relations between the two countries, where mathematical exchanges fit into the changing and evolving framework of Italian political and academic structures. Far from being a one-way relationship, this shows a multiplicity of actors and places, which became crucial in the dynamics of some mathematical specialities—by bringing out specific methods to solve problems, or becoming reference points for such methods. The book tries to take into account not only the disciplinary aspects, by considering mathematical problems faced simultaneously by mathematicians of the two countries, but also the institutions to which these mathematicians belonged, the journals in which they published, the conferences they attended.

To conclude this introduction, let us briefly describe the contents of the eight chapters. Their order roughly follows the chronology.

The first chapter, written by **Pierre Crépel**, is devoted to describing how Italian mathematicians were presented in the French biographical dictionaries of the 19th century. Until the 1870s, a huge number of biographical dictionaries were published in all Europe, such as those by Michaud and Hoefer. Pierre Crépel provides a general picture of the presence of Italians in these publications, and who were the main authors of these biographical notices. He also discusses if these biographical notices are representative of the image French mathematicians had of their Italian colleagues. The study focuses on Italian mathematicians who died between the late 18th century and 1860s and follows the evolution of their biographies both in different dictionaries and in different editions of the same works.

The second chapter, by **Frédéric Brechenmacher**, depicts some Italian mathematicians through the eyes of the scientific correspondence of Camille Jordan. This correspondence constitutes a very rich—and mostly unexploited—material on the evolution of mathematics from 1860 to 1900. Italians are so well represented in this correspondence that one may mistake Jordan himself for an Italian mathematician. As a matter of fact, Jordan took on several “Italian” roles during his career. For instance he contributed to the *Annali di Matematica pura ed applicata* early on in the 1860s, and was quickly considered by Brioschi and Cremona as a “scientific brother” as well as the “future” of mathematics. Jordan was not only elected corresponding member of several Italian institutions, such as the Lombard institute for sciences, but was also appointed as a delegate of (and anonymous reporter for) the Circolo matematico de Palermo in France. In describing the various Italian roles Jordan took on during his career, this chapter aims at questioning the relevance for analyzing the evolution of mathematics of national categories such as France and Italy.

The third chapter, due to **Aldo Brigaglia**, concentrates on the question of the scientific relationships between Emile Picard and the Italian algebraic geometers, especially Federico Enriques, Guido Castelnuovo and Francesco Severi. Even though their research fields sometimes intersected, they developed different mathematical languages, which often made mutual understanding difficult.

The chapter provides moreover an overview of the relationship between Picard and Bianchi in number theory, and also investigates the influence of Corrado Segre and Guido Fano on Élie Cartan, who also had a profound influence on Italian algebraic geometers, especially on Beniamino Segre.

The fourth chapter, written at six hands by **Angelo Guerraggio**, **Frédéric Jaëck** and **Laurent Mazliak** deals with the fascinating personality of Vito Volterra. In 1887, the latter published several papers introducing the notions of “function depending on another function” and of “function of lines” and opened thus a new chapter for mathematical analysis. Fifteen years later, Jacques Hadamard discovered in these works relevant tools to tackle some problems about partial differential equations and integral equations with a new approach. He subsequently published several papers in which he introduced Volterra’s notion of function of line under the name of “functional” and used Volterra’s formalism to deal with variational problems with a moving boundary. After 1904, Volterra and Hadamard began a regular correspondence and their scientific convergence can be observed in the session they jointly organized at Heidelberg’s international congress that year. At the same time, Maurice Fréchet, who had just completed his studies at the École Normale Supérieure in Paris, was looking for a suitable theme for his PhD. Following Borel’s advice, he wrote to Volterra to get his opinion about the relevance of extending some aspects of his theory of calculus for functions of lines. When he began to work on Volterra’s results and when he discovered some related works, such as Arzelà’s papers, Fréchet understood the interest of a more abstract approach, which would lead him to his study of abstract spaces and to his 1906 thesis.

The two following chapters are both concerned with Peano’s activity and its reception in France. They consider, however, two rather different aspects of this



activity. The first chapter, due to **Erika Luciano**, studies the reaction of the French community to the Italian treatises of calculus. From the 1880s indeed, the teaching of calculus in Italian universities showed significant elements of modernity and originality, especially concerning questions linked to the foundations of mathematics. Some works were at the origin of the renewal of university textbooks, including for instance the *Fondamenti per la teorica delle funzioni delle variabili reali* of Ulisse Dini and three treatises by Giuseppe Peano collecting his university lectures (1884, 1887, 1893). These treatises had a strong influence both on the university teaching practice and on the methodological choices of most Italian university books until the 1920s. The chapter illustrates how this educational trend had a significant impact on France. The French mathematical community appreciated the “rigorous” Italian treatises and seized this educational model. In particular, the circulation of these in France is scrutinized, in order to examine the phenomenology of the use of Peano’s treatises by his French colleagues, in the *Grandes Écoles* and in *Classes préparatoires*. The other chapter, written by **Paola Cantù**, describes the influence of the interdisciplinary approach developed by the Peano School on the interest acquired by French philosophers for logic and mathematics. In Italy, during the second part of the 19th century, the tension between a specialized and an interdisciplinary approach to knowledge emerged both in the discussions about the didactic reform of universities (and secondary schools) and in scientific research. In Turin, the group of mathematicians who studied or worked under the supervision of Giuseppe Peano between the end of the 19th century and the beginning of the 20th century developed an original interdisciplinary approach: on the one hand, they were highly specialized in logic and the foundations of mathematics, but on the other hand, they had multidisciplinary interests in linguistics, psychology, history of sciences and philosophy, philology, and politics. The chapter considers the influence of Peano’s school on an inversion of the tendency that emerged at the beginning of the 20th century in France, when philosophers started to be attracted by the writings of mathematicians who algebraized or formalized logic. In particular, it investigates the relation between the interdisciplinary and “pragmatic” conception of Peano’s school and the philosophical developments due to Louis Rougier and Jean Nicod. From the perspective of the history of ideas, it is particularly relevant to compare Rougier’s conventionalist interpretation of Poincaré and the probabilistic approach developed by Nicod with the ideas on the same topics expressed by Giovanni Vailati, a brilliant member of Peano’s school.

The seventh chapter by **Rossana Tazzioli** studies how French mathematicians judged Tullio Levi-Civita (1873–1941) and his scientific contribution to hydrodynamics. Before the First World War, Levi-Civita was already a well-known mathematician in Italy and abroad, especially in France. Professor at the University of Padua since 1898, he had published important works on tensor calculus, the theory of relativity, hydrodynamics, and the three-body problem. In 1911 he was elected a corresponding member of the Academy of Sciences of Paris. Nevertheless, from the 1920s, the relationship between Levi-Civita and his French colleagues became stronger. In particular, Levi-Civita was a privileged partner of the director

of the École Normale of Paris, Ernest Vessiot, and the study periods of French students in Rome were becoming more numerous and considered fundamental for their future research. In this chapter, Rossana Tazzioli analyzes the influence of Levi-Civita's hydrodynamics in France, especially on Henri Villat's works, and highlights the reasons, both institutional and scientific, which led to this special relationship between Levi-Civita and his French colleagues.

And finally, the last chapter, written by **Annalisa Capristo**, examines the situation of the most important international mathematical event of the 1920s, the international congress of Bologna in 1928. This conference took great significance both in the scientific and political spheres. Since this was the first congress after the First World War that was open to mathematicians from all countries, its organization was complicated by the conflicts within the International Mathematical Union and the International Research Council with regard to the admission of mathematicians from the former Central Powers. Eventually, this led some renowned French scientists to stay away. For the Italian authorities the Bologna Congress was seen as an exceptional opportunity to showcase the scientific strength of Fascist Italy, so it has also to be considered for its propagandistic significance, and implications. The chapter aims to analyze the organizational and political aspects of the 1928 Bologna Congress, with particular attention to the presence and absence of French mathematicians.

The aforementioned contributors come from different backgrounds: they are historians of mathematics, philosophers of science, and specialist historians of Italy or of intellectual relations. Some of them gathered in an interdisciplinary research group, and have already collaborated in the organization of conferences in France and Italy, and by publishing articles and books on related themes (see for instance (Mazliak and Tazzioli 2009; Brechenmacher 2011; Durand et al. 2013; Mazliak and Tazzioli 2015)). The present publication is hence in consonance with this new perspective of the historiography of science of the 19th and 20th centuries, aiming at reconsidering the issue of nationalities under the different pertinent points of view and in its complexity, often omitted in the research on history of mathematics.

Frédéric Brechenmacher,

Guillaume Jouve,

Laurent Mazliak,

Rossana Tazzioli.

*Palaiseau-Lens-Paris-Lille, February 2016*

---

## References

- A. del Boca, *Gli Italiani in Africa orientale*. Vol. 1 : Dall'Unità alla marcia su Roma, Laterza, 1976.
- F. Brechenmacher (ed.), Numéro spécial Galois, *Revue d'histoire des mathématiques*, vol. 17, 2011.
- V. Cerruti, Le matematiche pure e miste nei primi dodici congressi della Società Italiana per il Progresso delle scienze, *Atti della SIPS*, 1907, p. 94–107.
- A. Durand, L. Mazliak and R. Tazzioli, *Des mathématiciens et des guerres*, CNRS Editions, 2013.

- C. Fraixe, L. Picciano, C. Poupault (ed. by), *Vers une Europe latine. Acteurs et enjeux des échanges culturels entre la France et l'Italie fasciste*, Peter Lang, 2014.
- H. Gispert, La correspondance de G. Darboux avec J. Hoüel. Chronique d'un rédacteur (déc. 1869-nov. 1871), *Cahier du séminaire d'histoire des mathématiques*, vol. 8, 1987, p. 67–202.
- L. Mazliak, The ghosts of the Ecole Normale. Life, death and legacy of René Gateaux, *Statistical Science, Institute of Mathematical Statistics*, (3) 30, 2015, p. 391–412.
- L. Mazliak, R. Tazzioli, *Mathematicians at war. Volterra and his French colleagues in World War I*, Springer, 2009.
- L. Mazliak and R. Tazzioli (editors), *The calculated victory. Italian mathematicians and the Great War*. *Lettera Matematica International*, Volume 3, issue 1. June 2015 (<http://link.springer.com/journal/40329/3/1/page/1>).
- P. Milza, *Français et italiens à la fin du XIXème siècle*, Rome, école française de Rome, Paris, De Boccard, 1981, 2 vol.
- A. Morabito, *La construction nationale italienne dans le miroir français. Représentations croisées des « Pères de la Patrie italienne » en France du Printemps des Peuples à la Grande Guerre (1848–1914)*. Thèse. Université de Paris-Est, Università di Pisa, 2012.
- G. Noiriél, *Le massacre des Italiens, Aigues-Mortes, 17 août 1893*, Fayard, Paris, 2010.
- G. Pécourt, *Naissance de l'Italie contemporaine 1770–1922. Des origines du Risorgimento à l'Unité : comment l'Italie est devenue une nation*, Nathan, Paris, 1997.
- C. Poupault, *A l'ombre des Faisceaux. Les voyages français dans l'Italie des Chemises noires (1922–1943)*. Thèse. Université de Paris 10, Università La Sapienza Roma, 2011.
- C. Roux, *Franchir les Alpes. Regards vers la science politique italienne dans les années de la transition*. *Pôle Sud*, 19, 2003, p. 3–26.

Images of Italian Mathematics in France

The Latin Sisters, from Risorgimento to Fascism

Brechenmacher, F.; Jouve, G.; Mazliak, L.; Tazzioli, R.

(Eds.)

2016, V, 316 p. 5 illus., 2 illus. in color., Hardcover

ISBN: 978-3-319-40080-8

A product of Birkhäuser Basel