

The Neapolita case

The aim of my talk is to sketch the situation of journals in Naples, pointing out those, which in my opinion, could be investigated in the spirit of Cirmath, and which can be inserted in the database.

This is just a survey, to understand what kind of math journals were printed in Naples.

I must say that to look for journals in Naples isn't simple. For during the second world war part of the archives of public institutions have been destroyed.

The fate of Neapolitan publishing is tied to the political history of the Kingdom of Naples.

22 January 1799	“Jacobin” Republic
23 June 1799	First Bourbon Restoration
1806- 1815	French decade 1806-1808 Giuseppe Bonaparte 1808-1815 Giocchino Murat
1815/1816	Second Bourbon Restoration
1820 e 1848	Insurrections and subsequent violent Bourbon repression
1860	Unification of Italy

The scientific publishing industry was very prosperous until to the first two decades of the nineteenth century, many monographs and translations of foreign books were published.

The situation changed after the insurrection of 1820 and the consequent violent repression of the Bourbons. In 1822 a Decree, imposing a strong duty on the importation of books, greatly influenced Neapolitan publishing. The price of italians and foreign books increased, then consequently these books disappeared from libraries; especially the scientific and technical books which, due to their nature , were subject to constant changes.

In this period the number of printers increased from 33 in 1806 to 120 in 1833. What happens ? It happens that many booksellers became also printers, due to difficult economic conditions.

In 1830 Ferdinand II reduced the duty on foreign books. He also reduced the grip of censorship allowing the return of many exiles.

In this period began in Naples the publishing of many periodical journals

The first Journals

I have begun to select some of these journals. They have all the word Science or Scientific in the title, but also literature, arts, commerce

The main purpose of many of these journals was to inform the readers on literary scientific, artistic and commercial news, which occurred in Naples and in other Italians and foreign countries. To do this, the editors often used the acts and official reports of academic and culture societies, like those in Paris, London, Stockholm, St. Petersburg, but also those in Italy, like Pisa, Bologna, Florence, Turin.

Almost all these journals are divided into sections and among these we find the section “Natural Sciences and Mathematics”, seldom only “Mathematics” sometimes there aren't sections.

In the first half of the nineteenth century, not all issues of these journals contain mathematical articles. In any way, they are mostly articles of informative nature, bibliographies, necrologi or articles of history of mathematics.

The situation changed in the second half of the century, in fact we find different scientific journals, which have a specific section for mathematics in every issue: for example in 1854 we find

Annali scientifici. Giornale di scienze fisiche, matematiche, agricoltura, industria

An editor, Vincenzo Janni, is a mathematician

The articles are of applied mathematics to astronomy, physics and mechanics.

Another journal with the math section founded in 1857

Gianbattista Vico. Giornale Scientifico

This journal had a Maecenas Leopold of Bourbon Count of Syracuse

We have such type of Journal because since the forties of the nineteenth century in Naples there was a new generation of mathematicians of the Neapolitan analytical school

They are Giuseppe Battaglini, Nicola Trudi, Fortunato Padula, mathematicians who looked to European research and who contributed to the process of unification of Italy. These mathematicians are just the authors of the articles of these Journals.

These mathematicians , after the unification of Italy, will work together for only one journal, the *Giornale di Matematiche* founded by Giuseppe Battaglini. This explains why these journals are short-lived, three or four years.

The University....

As I said, in 1863 Giuseppe Battaglini founded the *Giornale di Matematiche*, that he headed for thirty years

We have 5 series of the *Giornale* until to 1965 , the publication was stopped during the second World War. Changing the directors, the editorial line of the *Giornale* changes too. In 1863 it was mainly dedicated to students of Italian universities.

In fact, mostly students published their early research, students of all Italian schools. There were pupils of Errico Betti in Pisa, Angelo Genocchi in Torino, Francesco Brioschi in Milano, Luigi Cremona and Eugenio Beltrami in Rome.

In the *Giornale* also published many teachers, above all teachers of technical schools. Also among the collaborators of Battaglini there are two teachers. This happens because the university, at that time, prepared the students to research, so many teachers were doing Research. In Italy the Teaching Schools were instituted in 1875.

But already the second series of *Giornale* changes. Even the title changes not more for students, but for the Progress of Studies in Italian universities and therefore change authors and public.

The *Giornale* gradually become more academic and increase the contributions of foreign mathematicians.

At first the only foreign language allowed, was the French, with the following series of the journal, we will also find articles in other languages.

The directors are always professors at the University.

I would like point out also two journals

The director of the fourth series is Carlo Miranda, who arrived in Neaples after the second war and reorganarized the math institut.

Ricerche di Matematiche was founded in 1925 and arises at the institut of mathematics

The director was Carlo Miranda, who was also the editor of the fourth series of *Giornale di matematiche*

Ricerche di Matematiche

A cura dell'Istituto di Matematica dell'Università di Napoli

Comitato di Redazione nel 1952:

Carlo Miranda (direttore) Renato Cacioppoli, Nicolò Spampinato, Carlo Tolotti, Guido Zappa.

Tip. Istituto di Matematica dell'Università - Napoli
(1952-2005)

Another journals which was born in 1950 at the University

It is interesting because its scientific committee consisted of mathematicians and engineers.

The journal 's aim is to favor interactions between pure and applied mathematics

La Ricerca

Rivista di Matematiche pure ed Applicate

Comitato scientifico direttivo:

S.E. Giovanni Giorgi (presidente) Vincenzo Amato, Giulio Andreoli, Enzo Carlevaro, Giuseppe De Meo, Pericle Ferretti, Adriano Galli, Luigi Lordi, Giuseppe Palomba, Giuseppe Palomba, Nicolò Spampinato,

Redazione:

Giulio Andreoli, Nicolò Spampinato, Giacomo Di Paolo, Angelo Fadini

Editore Conte – Napoli

(1950-1982)

Always in the university I show you now a particular journal founded in 1900 by the Italian Catholic Society for scientific studies

Rivista di Fisica, Matematica e Scienze Naturali.

it was founded by Monsignor Pietro Maffi, who taught physics, mathematics and natural sciences at the Seminary of Pavia.

The Journal was published until to 1943 and it is particular because

from 1900 to 1912 it was printed in Pavia at Premiata Tipografia Fratelli Fusi;

from 1913 to 1925 it was suspended
from 1926 to 1943 it was printed in Naples at Unione Tipografica Combattenti.

It had a lot of sections, many scientific new and Accadelies news . There was also a Math review with news on books, and Congresses.

It seems that in Pavia the journal had no editorial staff. Maffi led the journal alone. Instead in Naples, the magazine has an editorial board quite varied
Mons. G.B. Alfano (geologist, volcanologist), Luigi d'Aquino (physical), Umberto Pierantoni (zoologist), Gabriele Torelli (mathematician), Ferruccio Zambonini (mineralogist and chemical), Giuseppe Zirpolo (biologist).

The Articles of the volumes printed in Naples are really interesting, concern issues debated in that period, like the international scientific language or the application of mathematics to biology , or even School problems like Mathematics and physics teaching in middle school

The secondary school...

After the unification of Italy the whole education system, from primary education to university was reformed.

With these reform in Naples licei and technical institutes were born.

The history of these schools is told in this book published last year. The cultural value of these schools is testified by the rich patrimony of books and scientific instruments which they own.

As we have seen also the teachers were very active in scientific research, many mathematicians before becoming university professors had been taught at school.

Then these schools were publishing some interesting annals

I show you these annals (foto 4886)

Annali del Reale Istituto Tecnico e Nautico di Napoli

“Giovan Battista della Porta”

Reale Stabilimento tipografico Comm. Francesco Giannini & figli

Volume I- Volume XXXI (1884- 1913/14)

I recall that in 1872 the access to higher education could also happen through the physical-mathematical section of the technical institutes, In each issue, next to the news about the school (number of students, list of professors and lesson plans), were published articles of, physics, mechanics, astronomy, letters and mathematics, we find more articles of mathematics in the same issue.

It is not yet clear if the articles are addressed to students. It is applied mathematics, and the level of education provided in this school is very high.

Among the authors of this annals we find Federico Amodeo (1859-1946) a well-known historian of mathematics.

He was a teacher at this technical institute and he also held lectures on the history of mathematics at the university.

Amodeo is the author of two books on mathematics Neapolitan Life until 1860, (published in 1905 and 1924).

I have found annals of other schools but they are not complete. I have to continue the research

The accademies

In Naples we have two Academies with changing fortunes ,

L'accademia di scienze was founded in 1778 by Ferdinand IV as section of the Royal Borbon Society;

and the Academy Pontaniana, which was founded in 1808 by a group of scientists and literaries . It was a Society which became Academy in 1825, for a decree of Francesco I

All publications of the academies become regular after 1863, befor the volumes had less and less math articols until to 1857, where we find 13 memories of mathematics.

Atti della R. Accademia delle Scienze [Sezione della Società Reale Borbonica]

Volume I – 1819

11 memories of mathematics published by Fergola and his pupils

Fergola is the head of the school synthetic Neapolitan

the first volume contains the papers presented at the Academy reorganized by Joseph Bonaparte in 1808

Volume II – 1825

3 memories of mathematics

Volume III – 1832

1 a memory of mathematics of a French author Jean Nicolas Pierre Hachette

Volume IV – 1839

two memories, one of Flauti s and an old unpublished work by Fergola

Volume V – parte I, 1843; parte II, 1844

a memory of mechanics

Volume VI – 1851

4 memories of mathematics

Memorie della R. Accademia delle Scienze [Sezione della Società Reale Borbonica]

Volume I [1852-1854] – 1856

7 memories of mathematics

Volume II [1855-1857] – 1857

13 memories of mathematics

Due the long period of political division, the role of academies in Italy was very important during all the nineteenth century.

I have not considered here the Atti and the Annuari of three prestigious institutions

Reale Società di Incoraggiamento alle Scienze Naturali, Economiche e Tecnologiche (1806)

Scuola di Applicazioni del Corpo degl'ingegneri di Ponti e Strade (1811)

L'osservatorio astronomico di Capodimonte (1819)

The first two were founded in the French decade and preserved even after the Bourbon government.

I have to say that I didn't find much, but my work is in progress