Test Document of ShERML

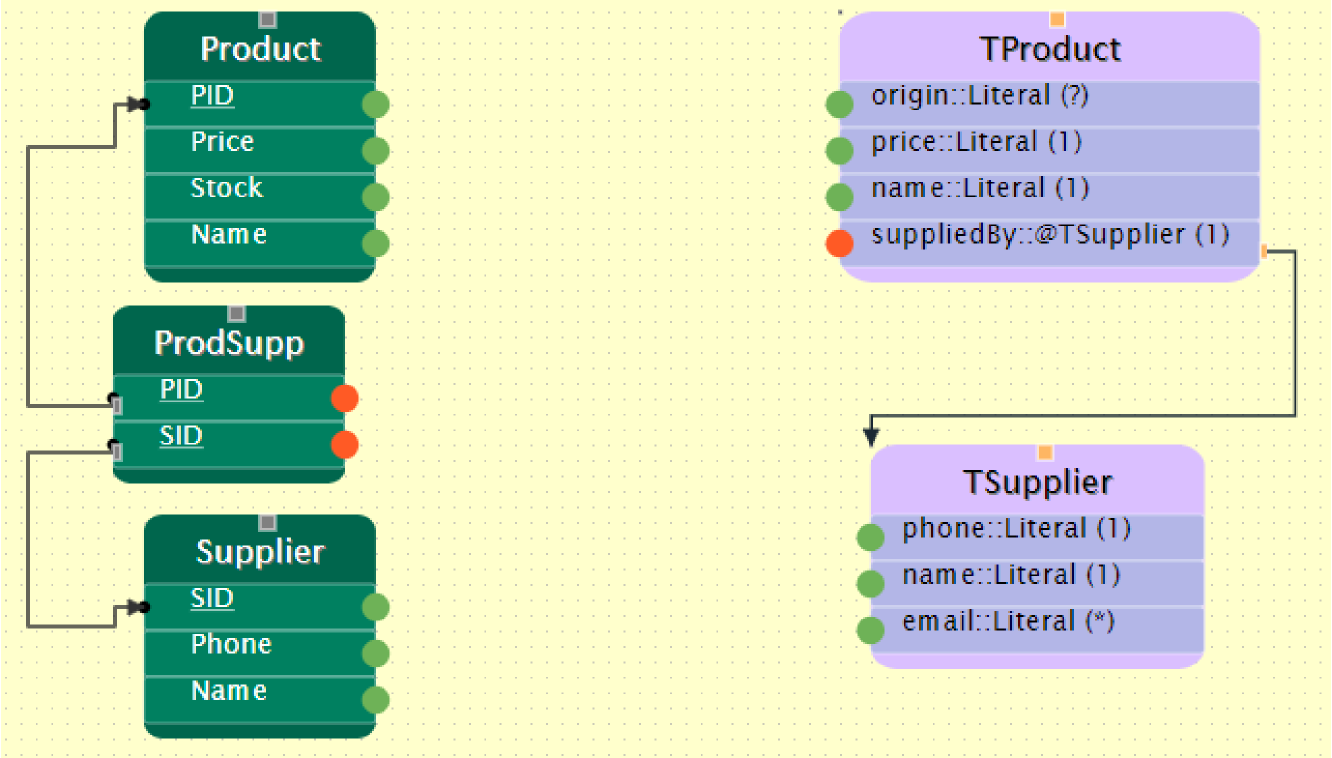
Consider three cases of mapping rules and do the following mappings according to each case. For each case load ShERML. Access to the following address :

https://github.com/josemachino/ShERML

The files are in the folder *data*.

Case 1 (supplier.sql and supplier.json)

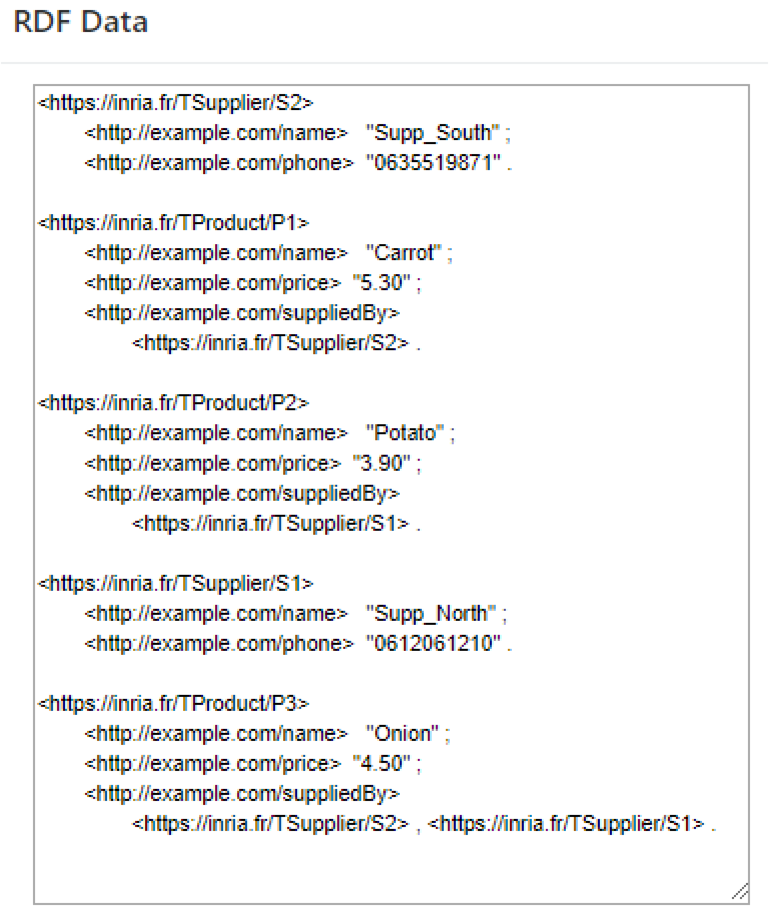
The database stores products that can be sold from many suppliers. The relation of Products with its suppliers are in table ProdSupp.



Mappings:

1. Map name and price of Products to properties name and price of TProduct
2. Map name and phone of Supplier to properties name and phone of TSupplier
3. Map suppliers of a Product to property suppliedBy of TProduct. Recall that suppliedBy the target shape is TSupplier.

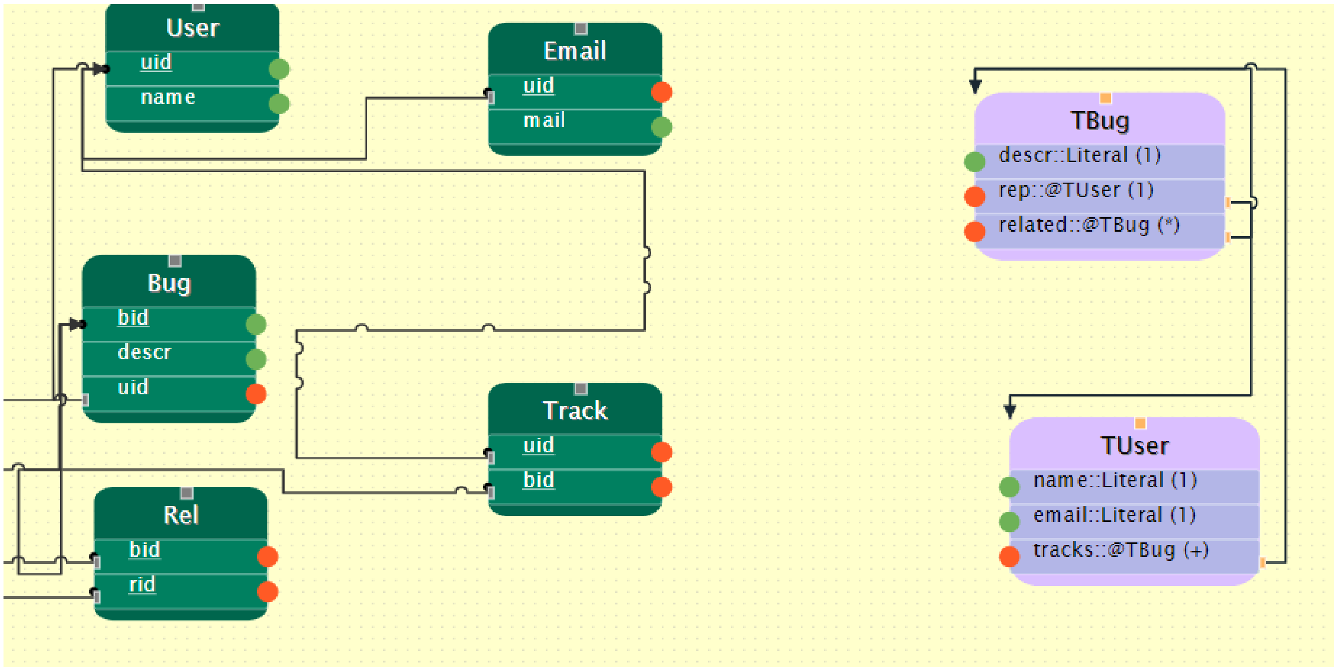
The desired result is the following graph.



```
<https://inria.fr/TSupplier/S2>
      <http://example.com/name>   "Supp_South" ;
      <http://example.com/phone>  "0635519871" .

<https://inria.fr/TProduct/P1>
      <http://example.com/name>   "Carrot" ;
      <http://example.com/price>  "5.30" ;
      <http://example.com/suppliedBy>
            <https://inria.fr/TSupplier/S2> .

<https://inria.fr/TProduct/P2>
      <http://example.com/name>   "Potato" ;
      <http://example.com/price>  "3.90" ;
      <http://example.com/suppliedBy>
            <https://inria.fr/TSupplier/S1> .

<https://inria.fr/TSupplier/S1>
      <http://example.com/name>   "Supp_North" ;
      <http://example.com/phone>  "0612061210" .

<https://inria.fr/TProduct/P3>
      <http://example.com/name>   "Onion" ;
      <http://example.com/price>  "4.50" ;
      <http://example.com/suppliedBy>
            <https://inria.fr/TSupplier/S2> , <https://inria.fr/TSupplier/S1> .
```

Case 2 (bug.sql and Bug.json)

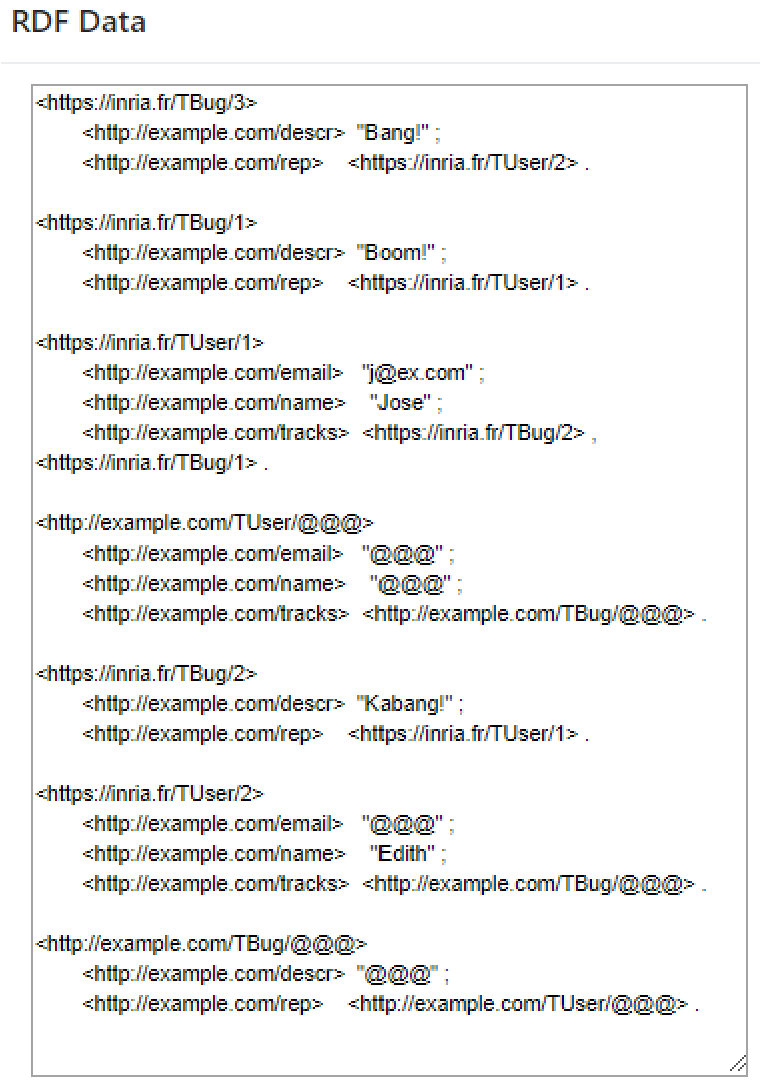
The database stores users, bugs and the activity between them. Since, a user can have or not an email, there is a table Email that stores emails in such case. Track table contains the users (uid) that track a bug (bid). Bug table stores the user (uid) that reports the bug. The Rel table stores a bug (bid) that is related with another bug (rid).



Mappings :

1. Map description of a Bug to property descr of TBug.
2. Map the user that reported a Bug to property rep of Tbug.
3. Map a related bug of some Bug to property related of Tbug.
4. Map name and email of User to properties name and email of Tuser.
5. Map Bugs that are tracked by a User to property track of TUser.

The desired result is the following graph.



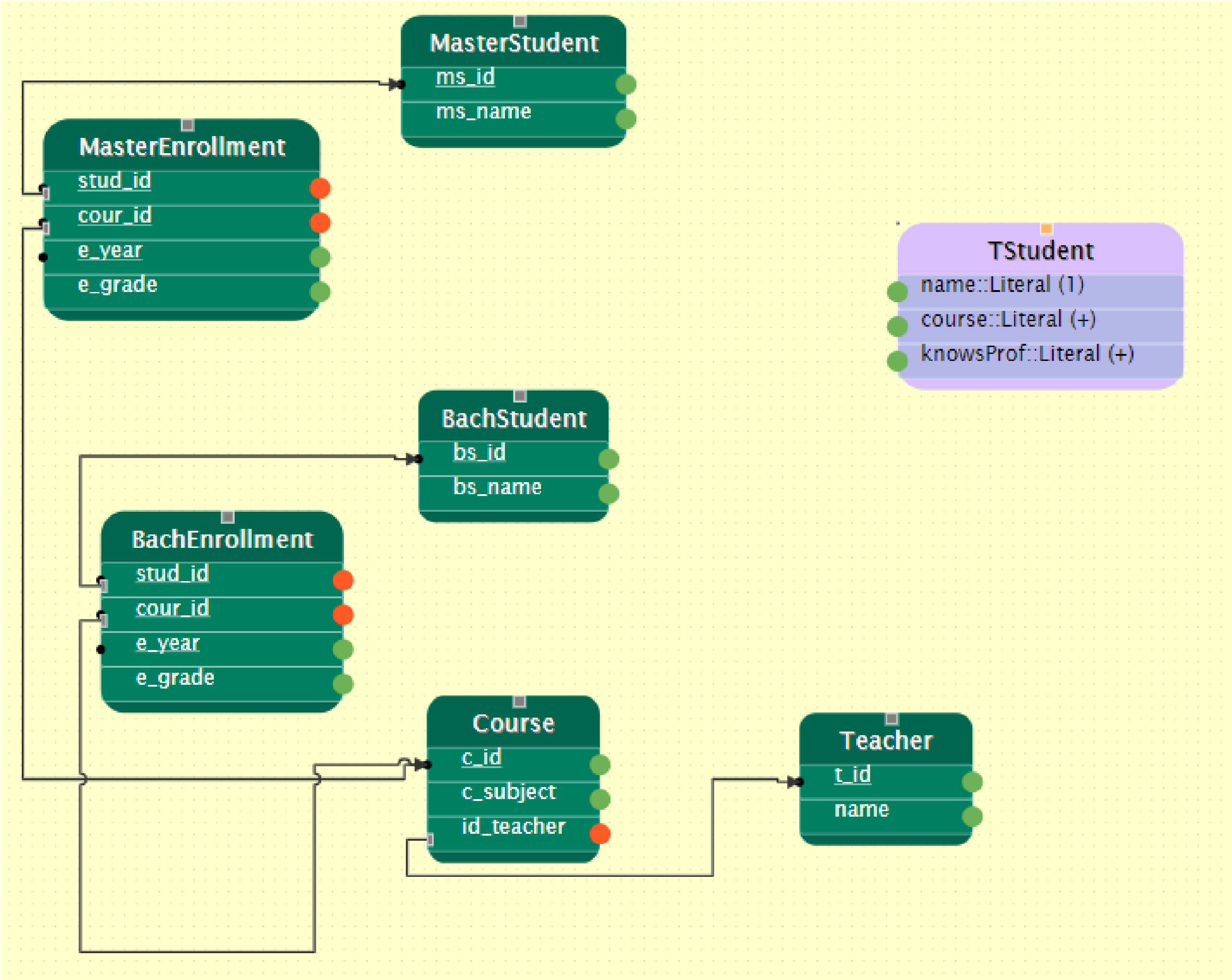
RDF Data

```
<https://inria.fr/TBug/3>
      <http://example.com/descr>  "Bang!" ;
      <http://example.com/rep>    <https://inria.fr/TUser/2> .

<https://inria.fr/TBug/1>
      <http://example.com/descr>  "Boom!" ;
      <http://example.com/rep>    <https://inria.fr/TUser/1> .

<https://inria.fr/TUser/1>
      <http://example.com/email>   "j@ex.com" ;
      <http://example.com/name>    "Jose" ;
      <http://example.com/tracks>  <https://inria.fr/TBug/2> ,
<https://inria.fr/TBug/1> .

<http://example.com/TUser/@@@>
      <http://example.com/email>   "@@@" ;
      <http://example.com/name>    "@@@" ;
      <http://example.com/tracks>  <http://example.com/TBug/@@@> .

<https://inria.fr/TBug/2>
      <http://example.com/descr>  "Kabang!" ;
      <http://example.com/rep>    <https://inria.fr/TUser/1> .

<https://inria.fr/TUser/2>
      <http://example.com/email>   "@@@" ;
      <http://example.com/name>    "Edith" ;
      <http://example.com/tracks>  <http://example.com/TBug/@@@> .

<http://example.com/TBug/@@@>
      <http://example.com/descr>  "@@@" ;
      <http://example.com/rep>    <http://example.com/TUser/@@@> .
```

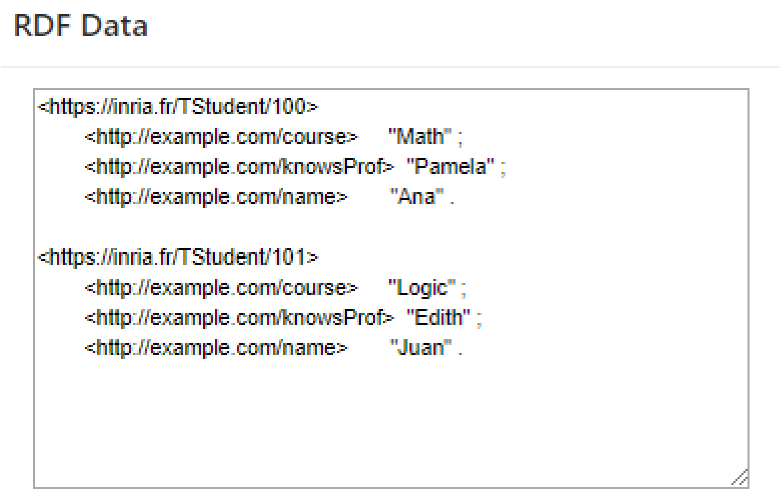
Case 3(student.sql and masterstudent.json)
The database stores courses, teachers, bachelor and master students. MasterEnrollment table stores master students that are enrolled in a course, the year and the grade. BachelorEnrollment table stores bachelor students in a course, the year and the grade. Course table stores also the teacher that gives the course.

Mappings :

1. Map name of Masterstudents to property name of Tstudent.
2. Map subject of Courses that a master student attend to property course of Tstudent.
3. Map name of Teachers where a master student knows from attending the course that he gave to property knowsProf of Tstudent.



The desired result is the following graph.

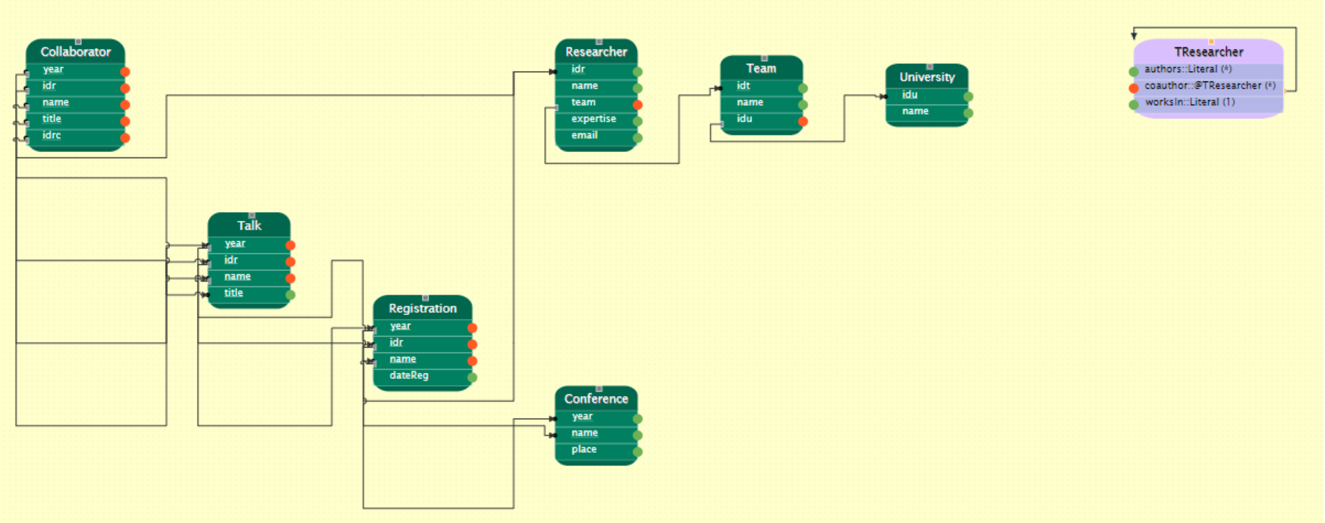


RDF Data

```
<https://inria.fr/TStudent/100>
        <http://example.com/course>     "Math" ;
        <http://example.com/knowsProf>  "Pamela" ;
        <http://example.com/name>       "Ana" .

<https://inria.fr/TStudent/101>
        <http://example.com/course>     "Logic" ;
        <http://example.com/knowsProf>  "Edith" ;
        <http://example.com/name>       "Juan" .
```

Case 4 (conference.sql and conference.json)

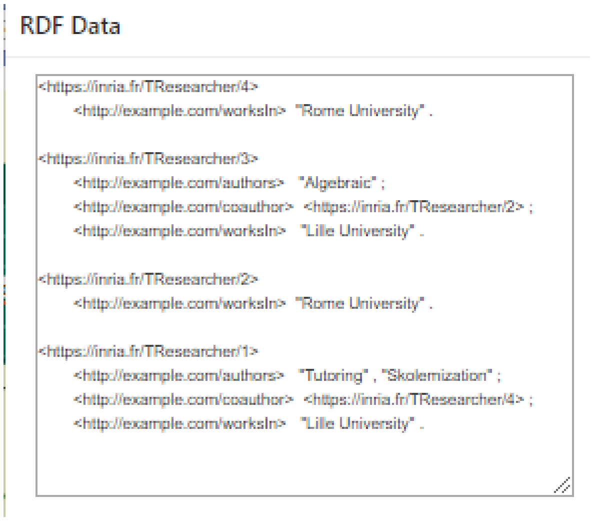
The database stores researchers, conferences, universities, team of universities. Registration table stores researches that register to a conference. Talk table stores the publication title of the researcher done in a conference once that is registered. Collaborator table stores researchers that co-author a work presented in a conference. The co-author researcher is identified by idrc.



Mappings :

1. Map the name of the university where a researcher works in to property worksIn of shape Tresearcher
2. Map researchers with its co-authors to property co-author of shape TResearcher
3. Map title of talks of a researcher to property authors of TResearcher

The desired result is the following graph.



```
<https://inria.fr/TResearcher/4>
      <http://example.com/worksIn>  "Rome University" .

<https://inria.fr/TResearcher/3>
      <http://example.com/authors>   "Algebraic" ;
      <http://example.com/coauthor>  <https://inria.fr/TResearcher/2> ;
      <http://example.com/worksIn>   "Lille University" .

<https://inria.fr/TResearcher/2>
      <http://example.com/worksIn>  "Rome University" .

<https://inria.fr/TResearcher/1>
      <http://example.com/authors>   "Tutoring" , "Skolemization" ;
      <http://example.com/coauthor>  <https://inria.fr/TResearcher/4> ;
      <http://example.com/worksIn>   "Lille University" .
```