

# Extract Co-PI Network

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## Description

Extracts the co-principal-investigatorship network from an NSF database.

Each principal investigator from each award in the input database, including main PIs and co-PIs, is represented by a node. An edge is drawn between the nodes for two PIs if and only if they co-investigated an award in the database.

## Analyses

The output network will include the following summaries of your dataset:

- Node (PI)
  - Number of awards investigated in your dataset.
  - Total of amount across investigated awards.
  - Start date of the earliest award.
  - Expiration date of the latest award.
- Edge (Co-investigatorship)
  - The number of awards co-investigated by the two connected investigators.
  - The joint award amount total between the connected investigators.

## Usage Hints

Load an NSF file into the tool, then create a database from it using [the NSF database loader?](#).

For a quick analysis of a small dataset you may wish to [merge together investigator entities with identical names](#). For a scientifically sound analysis of a larger dataset, you can [create custom merging orders](#) and [perform the merge](#).

## Links

- [Source code](#)
- [The database queries](#) used to extract the node table and the edge table determining the network