

BEST KOREAN MOVIES IN IMDB

Yoon Hee Kim
Spring 2020

PRODUCTION

DIRECTOR

CAMERA

TAKE

CONTENT

Descriptive Statistics

- I. Data Set
- II. Grouping per Year
- III. Grouping per Genre
- IV. Grouping per Director
- V. Grouping per Actor

Network of Films, Directors, Actors and Genres

- I. Bipartite graph of Titles vs. Actors
 - 1. Network of actors with common titles
 - 2. Network of titles with common actors
- II. Bipartite graph of Directors vs. Actors
 - 1. Network of directors with common actors
 - 2. Network of actors with common directors
- III. Longitudinal Co-Actorship (by Title) Networks

DESCRIPTIVE STATISTICS

DATA SET

Unnamed: 0		TITLE	YEAR	DIRECTOR	STARS	GENRE
0	0	The Handmaiden	2016	Chan-wook Park	Min-hee Kim, Jung-woo Ha, Jin-woong Cho, So-Ri...	Drama, Romance, Thriller
1	1	Snowpiercer	2013	Joon-ho Bong (D)	Chris Evans, Jamie Bell, Tilda Swinton, Ed Harris	Action, Drama, Sci-Fi
2	2	Oldboy	2016	Chan-wook Park	Min-sik Choi, Ji-Tae Yoo, Hye-jeong Kang, Dae...	Action, Drama, Mystery
3	3	Train to Busan	2016	Sang-ho Yeon	Yoo Gong, Yu-mi Jung, Dong-seok Ma, Su-an Kim	Action, Horror, Thriller
4	4	Memories of Murder	2003	Joon-ho Bong (D)	Kang-ho Song, Sang-kyung Kim, Roe-ha Kim, Jae...	Action, Crime, Drama



Years

29 years
1990 – 2019
Continuous except 1991



Directors

186 directors



Genres

19 genres
Up to 3 genres



Titles

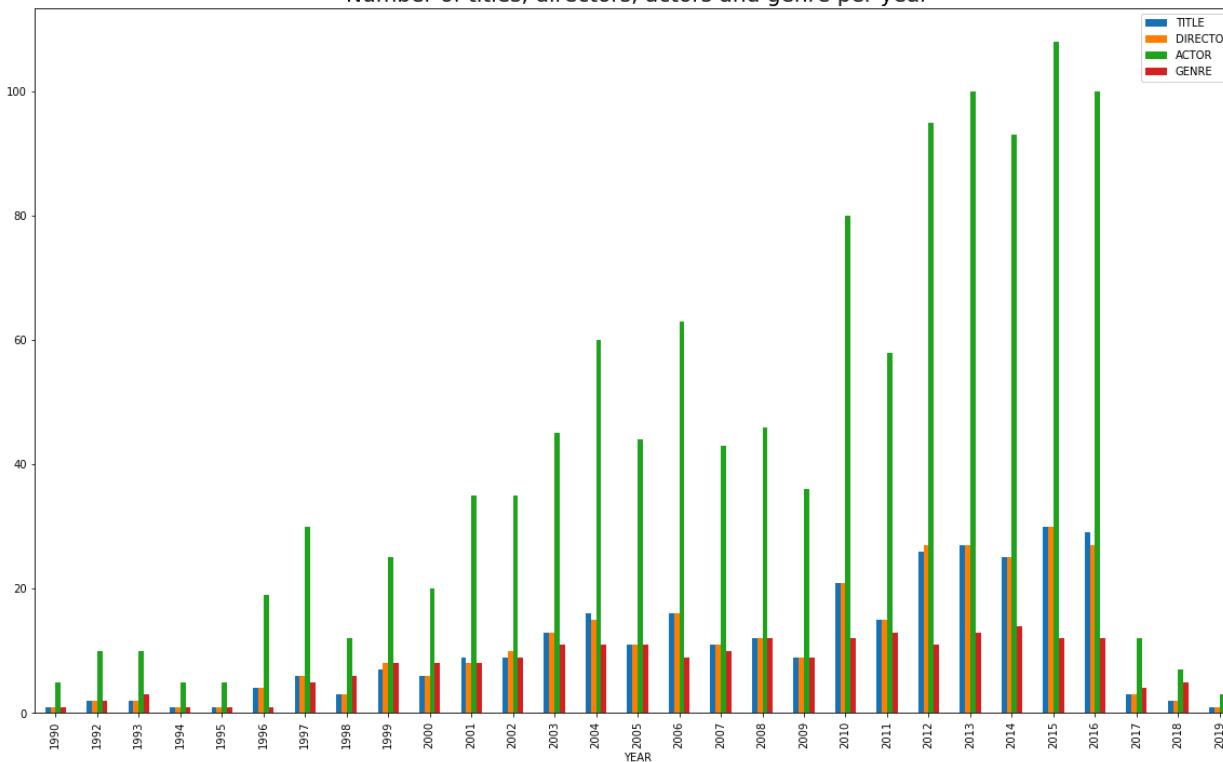
318 unique titles
4 films with same title



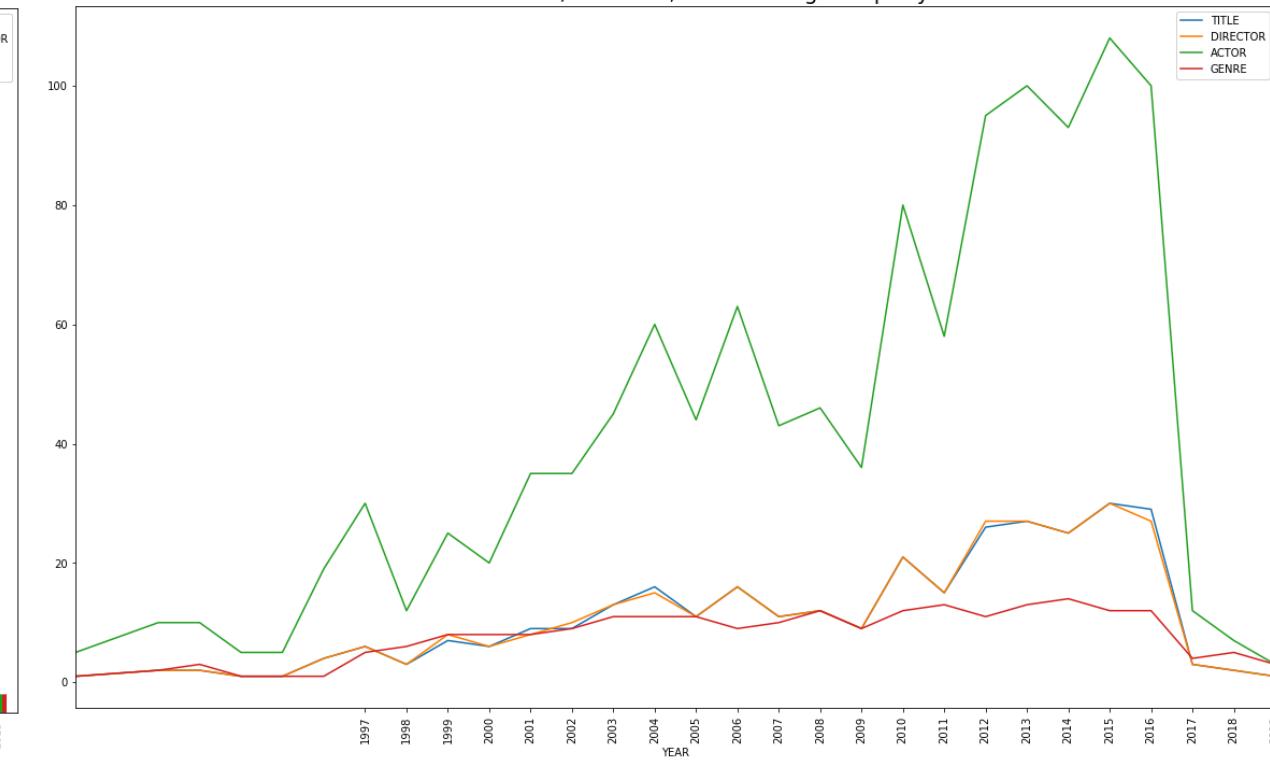
Actors

717 actors
Up to 4 main actors

Number of titles, directors, actors and genre per year



Number of titles, directors, actors and genre per year



GROUPING PER YEAR

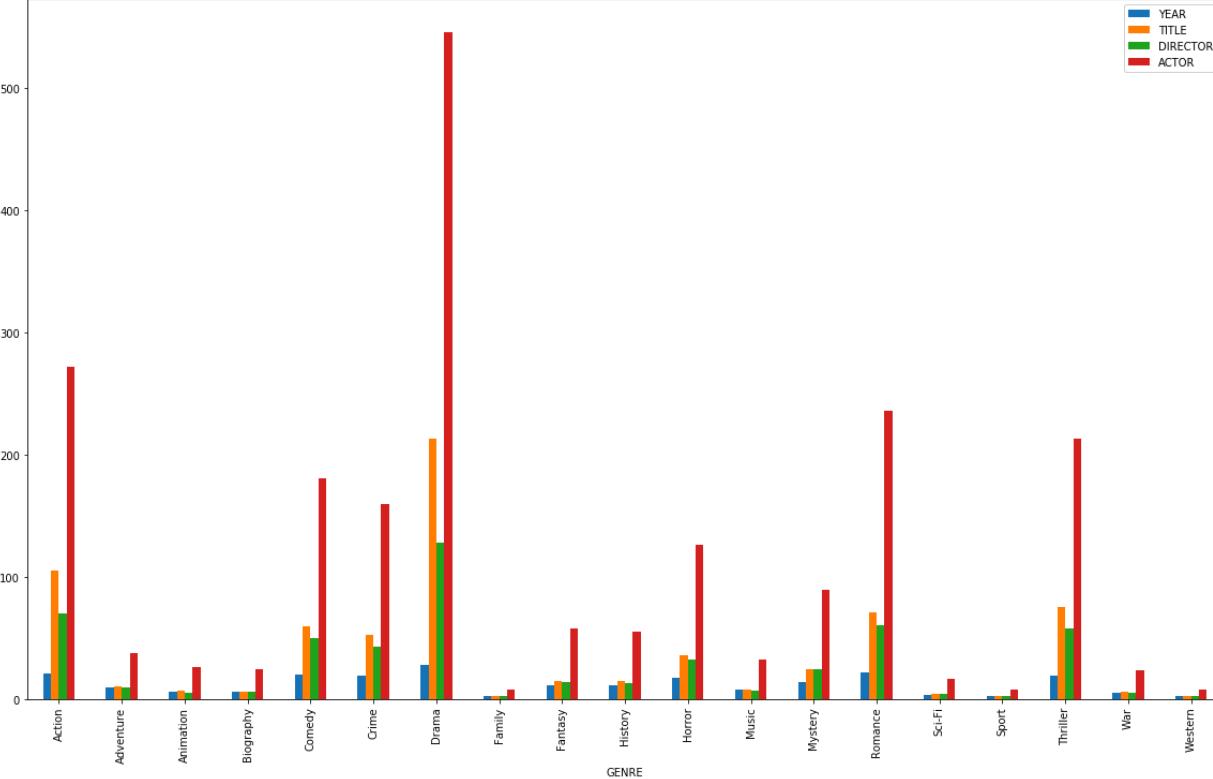
Blue - Title

Orange - Director

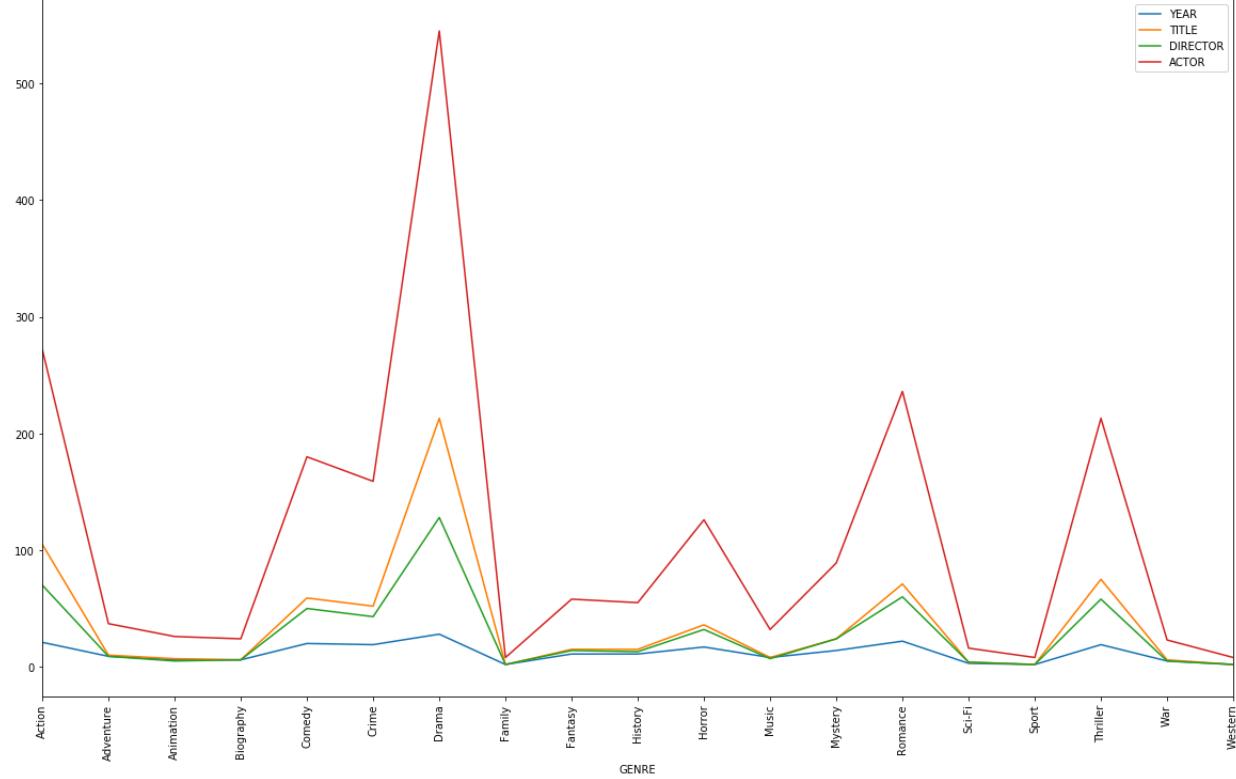
Green - Actor

Red - Genre

Number of years, titles, directors and actors per genre



Number of titles, directors, actors and years per genre



GROUPING PER GENRE

Blue - Title

Orange - Director

Green - Actor

Red - Genre

Wordcloud of Directors



GROUPING PER DIRECTOR

GROUPING PER DIRECTOR

5 directors with greatest number of titles

DIRECTOR	YEAR	TITLE	ACTOR	GENRE
Ki-duk Kim (D)	12	14	46	8
Jee-woon Kim	9	9	28	11
Joon-ho Bong (D)	7	7	22	8
Chan-wook Park	6	7	23	8
Chang-dong Lee	6	6	22	3

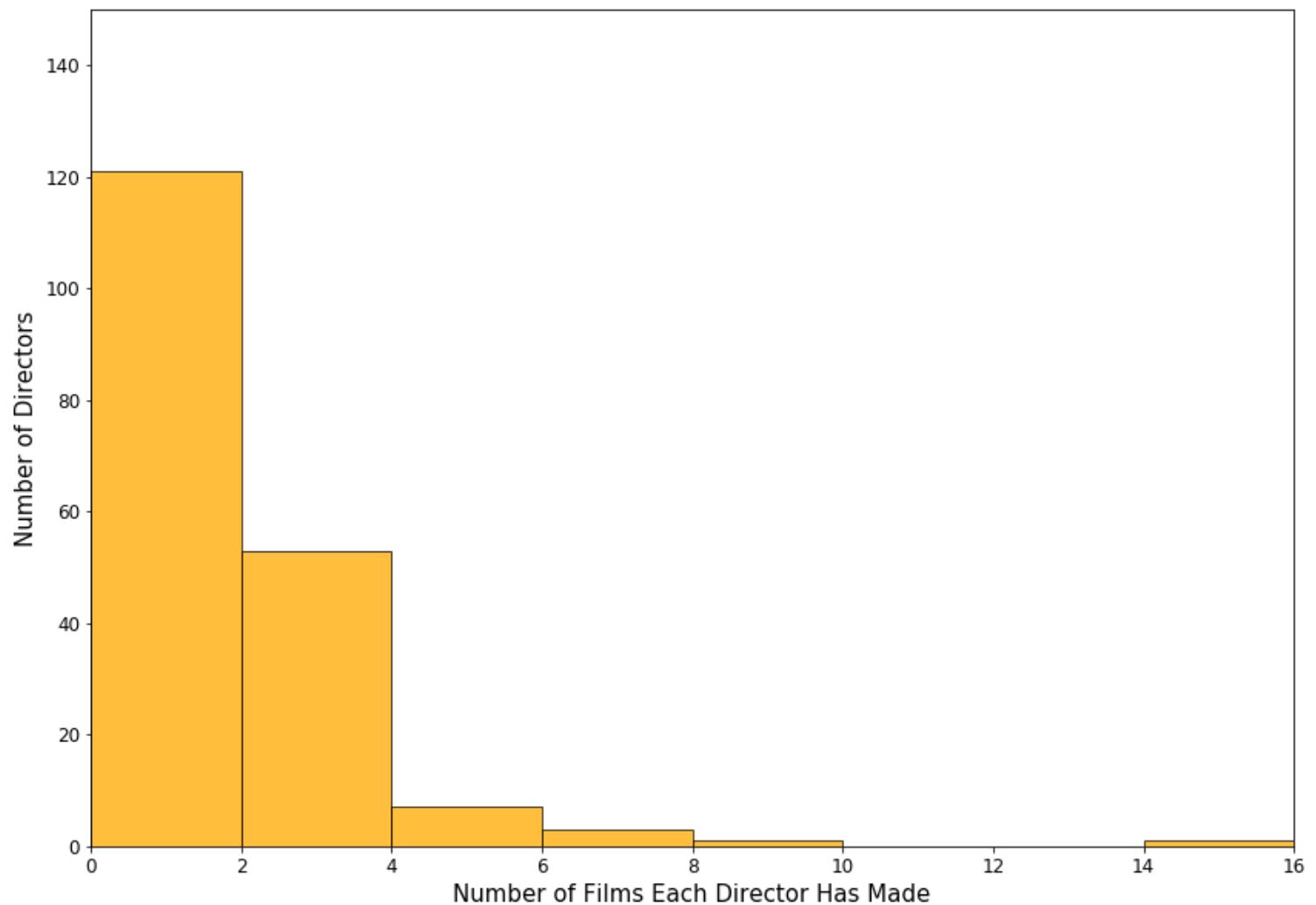


GROUPING PER DIRECTOR

5 directors with greatest number of titles

DIRECTOR	YEAR	TITLE	ACTOR	GENRE
Ki-duk Kim (D)	12	14	46	8
Jee-woon Kim	9	9	28	11
Joon-ho Bong (D)	7	7	22	8
Chan-wook Park	6	7	23	8
Chang-dong Lee	6	6	22	3

Histogram of Directors in Films

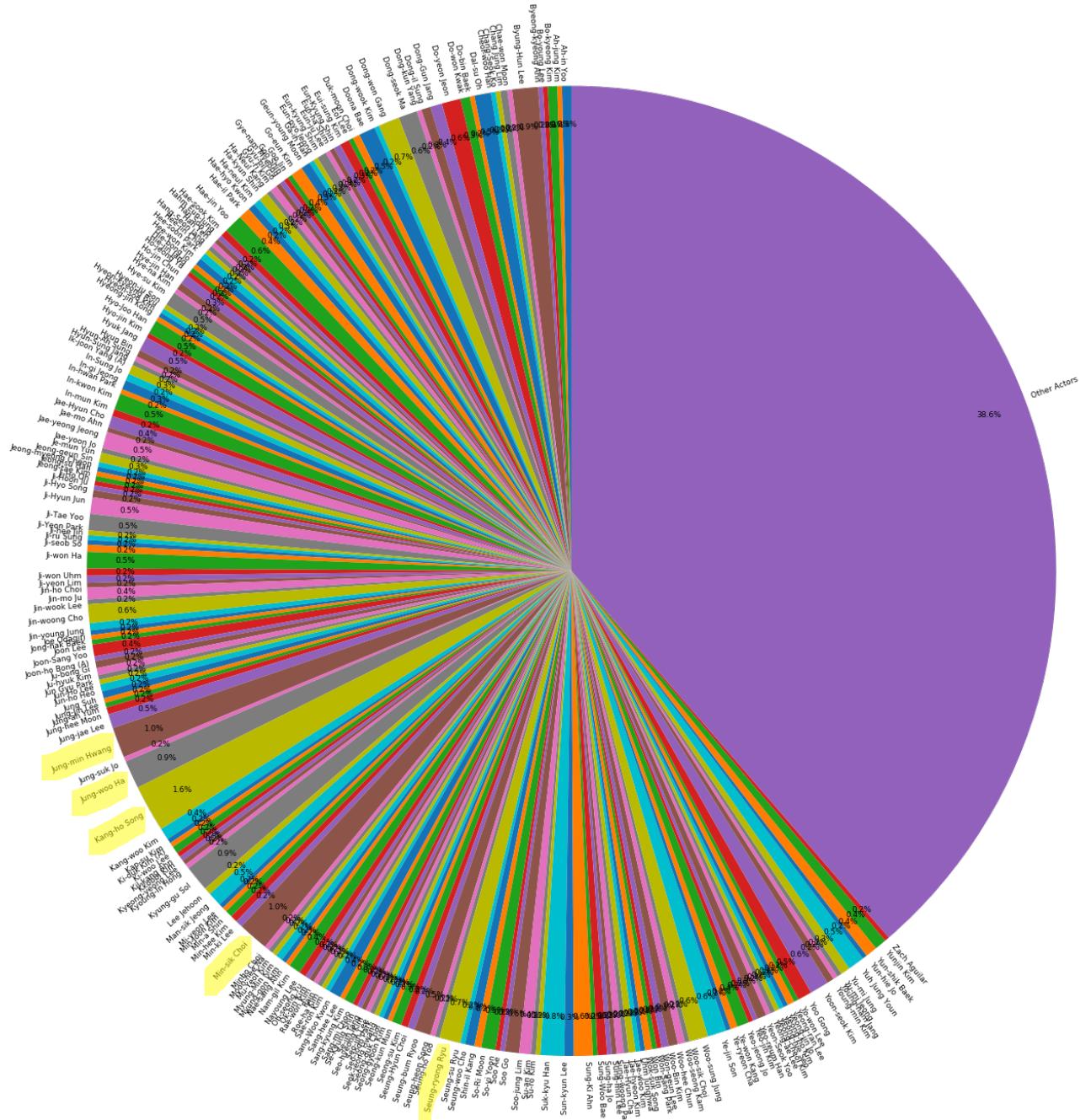


Wordcloud of Actors



GROUPING PER ACTOR

Number of Titles per Actor



GROUPING PER ACTOR

5 actors with greatest number of titles

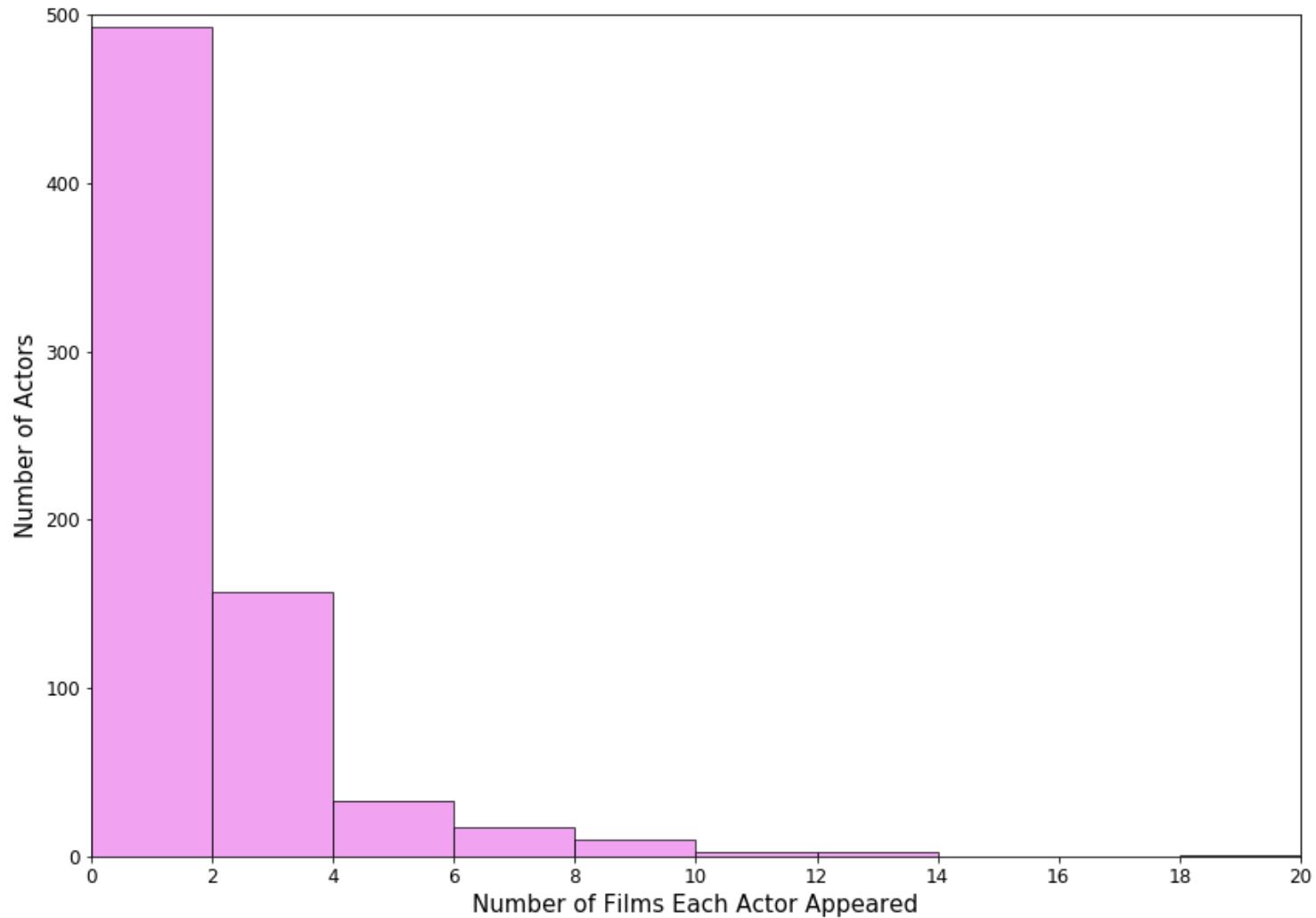
ACTOR	YEAR	DIRECTOR	TITLE	GENRE
Kang-ho Song	18	12	20	12
Jung-min Hwang	8	12	13	12
Min-sik Choi	12	10	13	11
Jung-woo Ha	10	9	12	6
Kyung-gu Sol	9	10	11	5

GROUPING PER ACTOR

5 actors with greatest number of titles

ACTOR	YEAR	DIRECTOR	TITLE	GENRE
Kang-ho Song	18	12	20	12
Jung-min Hwang	8	12	13	12
Min-sik Choi	12	10	13	11
Jung-woo Ha	10	9	12	6
Kyung-gu Sol	9	10	11	5

Histogram of Actors in Films

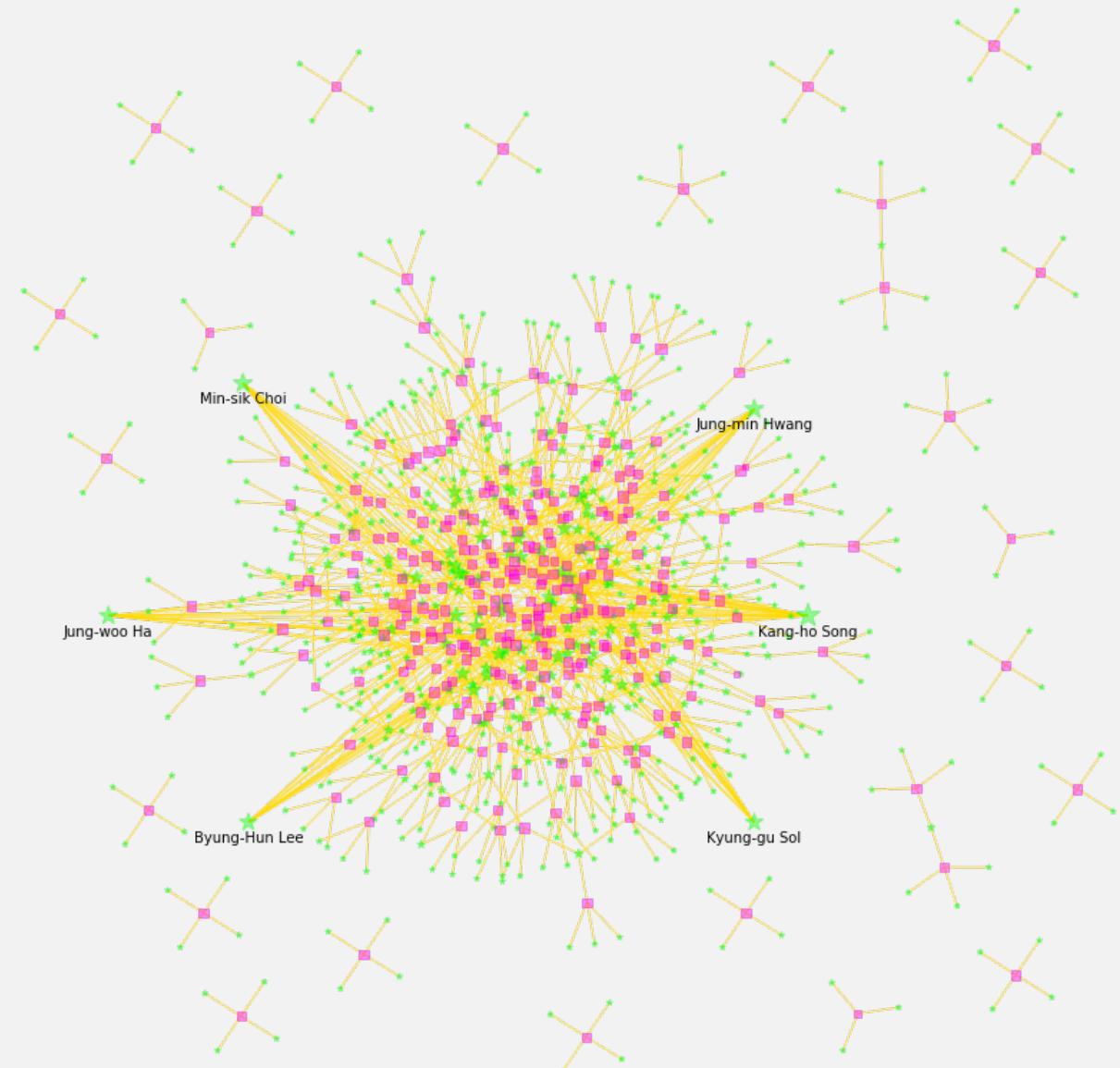


NETWORK OF
FILMS, DIRECTORS,
ACTORS AND GENRES

BIPARTITE GRAPH OF TITLES VS. ACTORS

- 1035 nodes
 - 318 titles
 - 717 actors
- Bipartite
- Not connected
 - 27 connected components
 - Largest connected component
 - 898 nodes
 - 290 titles
 - 608 actors
 - 1165 edges

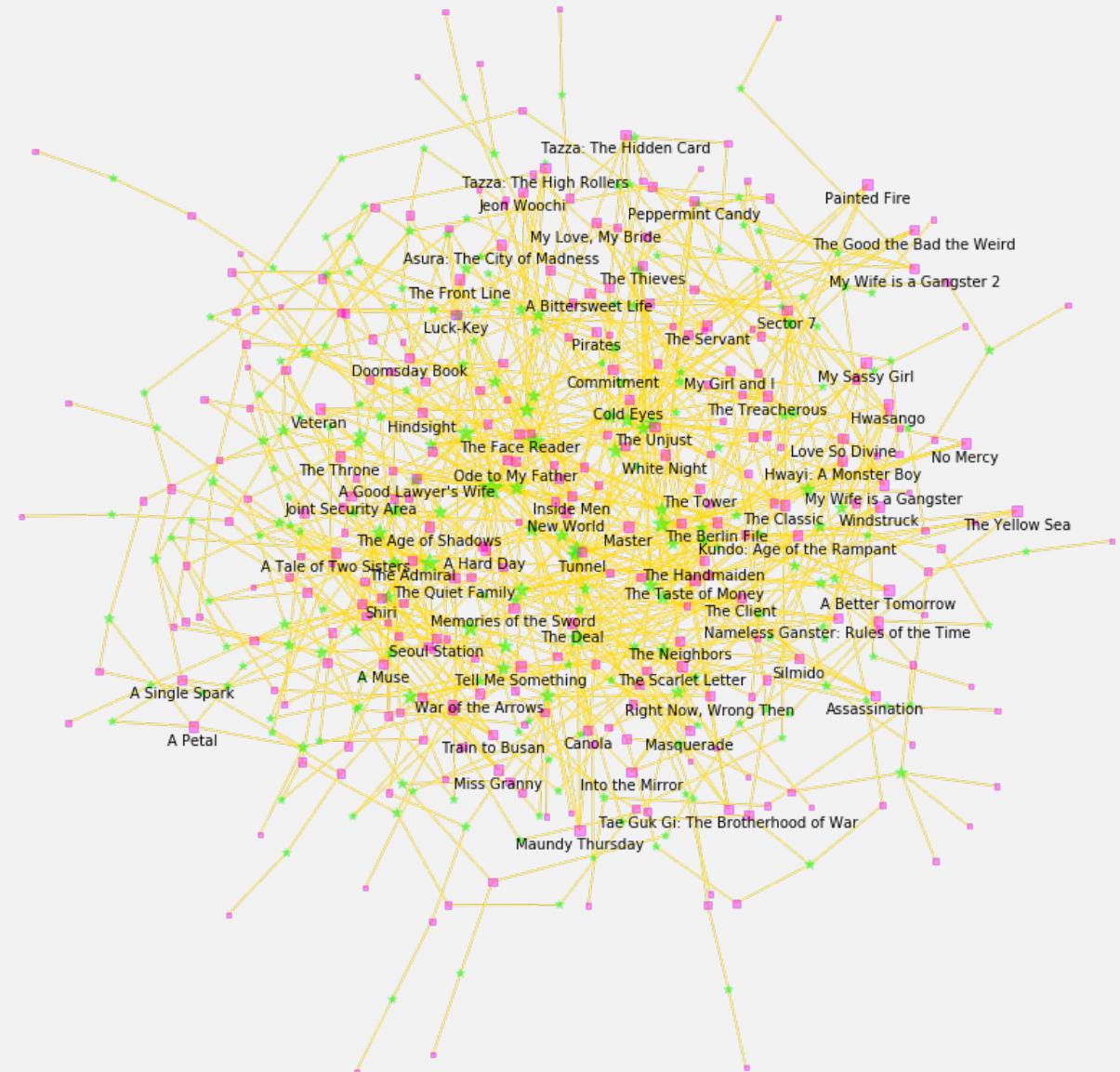
The Graph of Titles vs. Actors
in 322 imdb best Korean movies
(only labels of actors starring in more than 10 titles are shown)



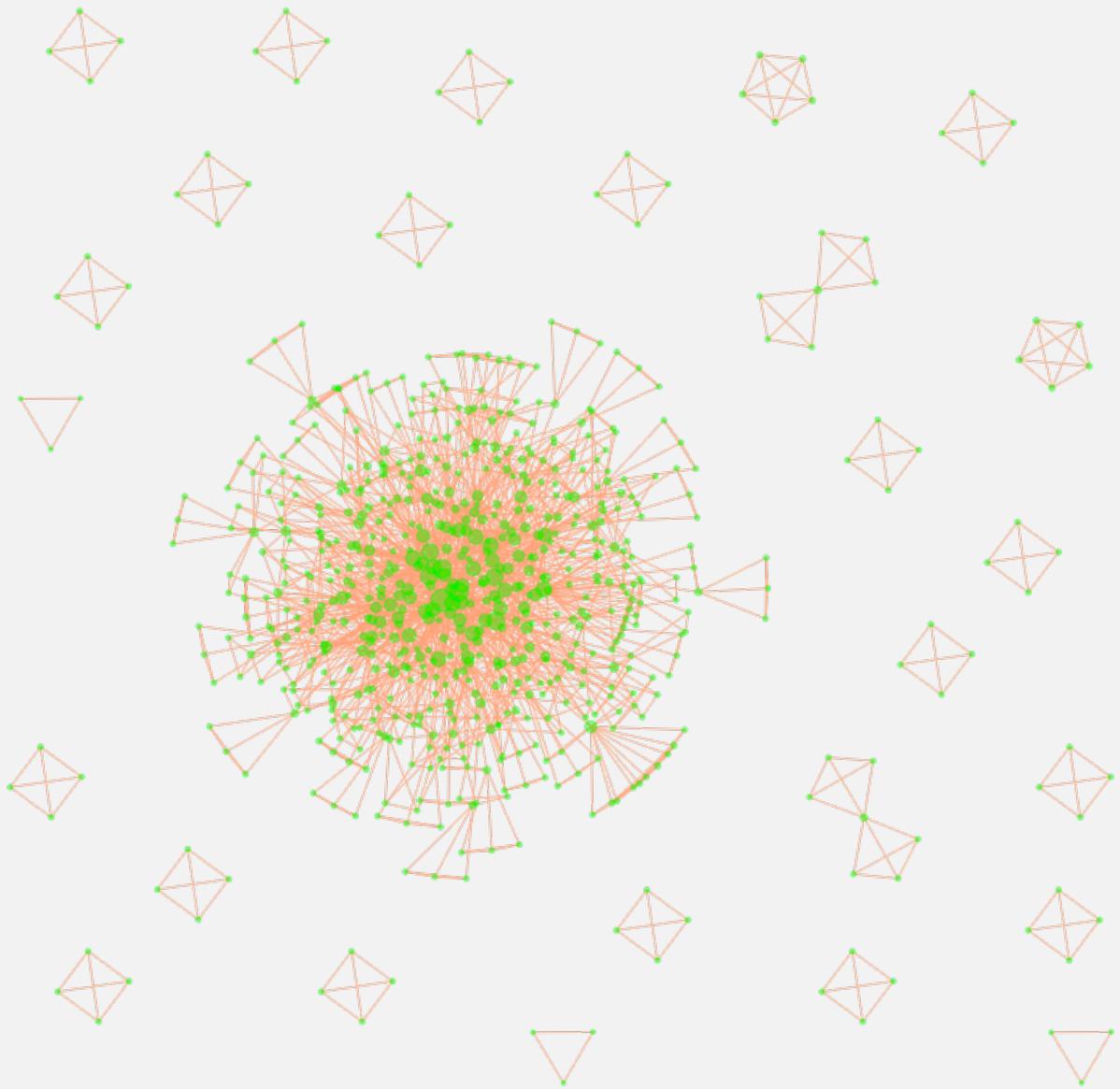
PRUNED LARGEST CONNECTED COMPONENT

- Magenta squares
 - titles
 - Lime stars
 - Actors
 - Pruned
 - Actors with degree 1 removed
 - No lime node with degree 1

The pruned largest connected component of the
graph of Titles vs. Actors
in 322 imdb best Korean movies
(only labels of titles connected to other titles by actors are shown)



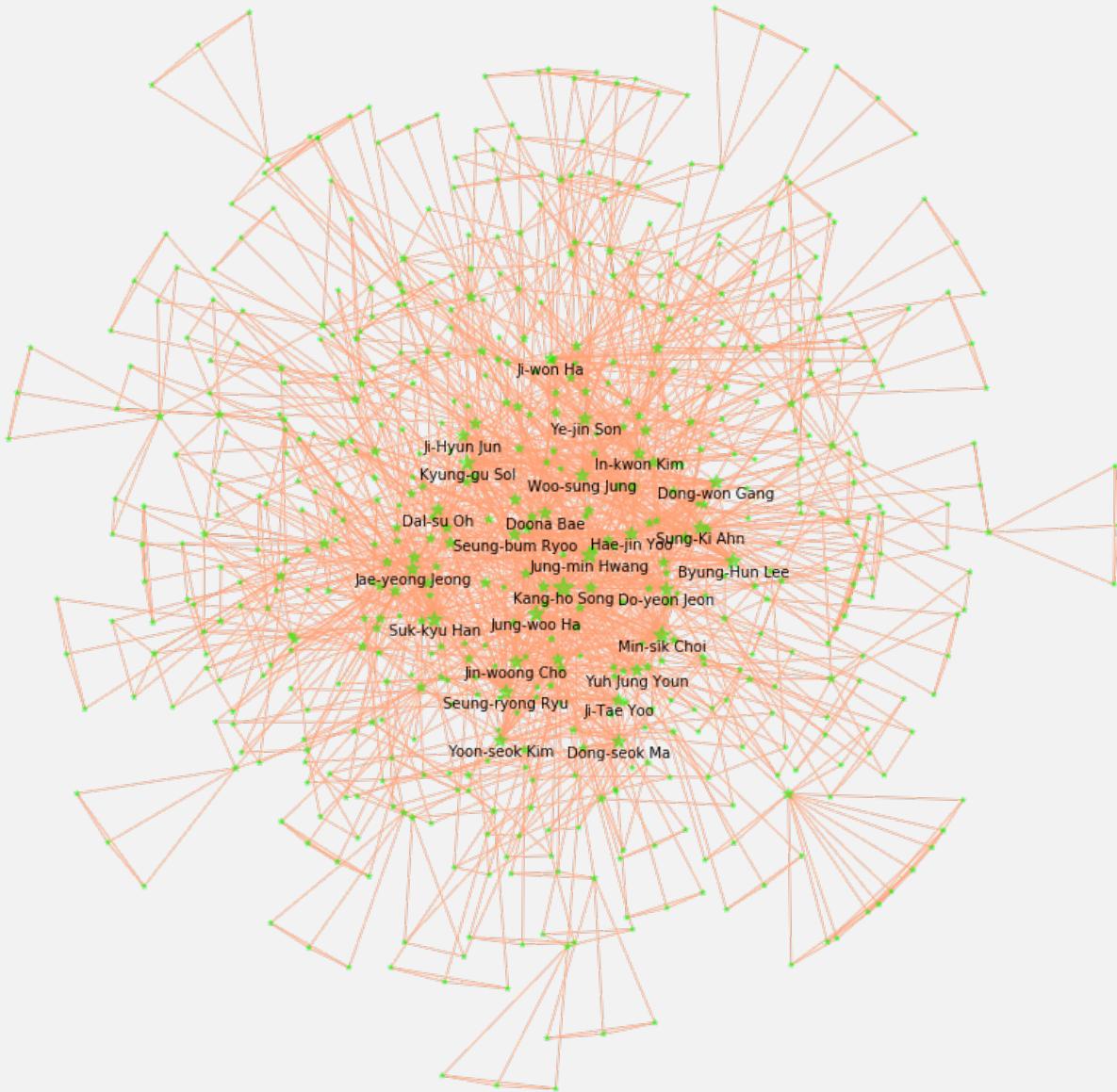
The Co-Actorship (by titles) Graph
in 322 imdb best Korean movies



NETWORK OF ACTORS WITH COMMON TITLES

- 717 Nodes and 1945 edges
 - Lime stars: actors
 - Connection: co-actorship
- Weighted multigraph
- Not connected
 - 27 connected components
 - largest component
 - 608 nodes
 - 1778 edges

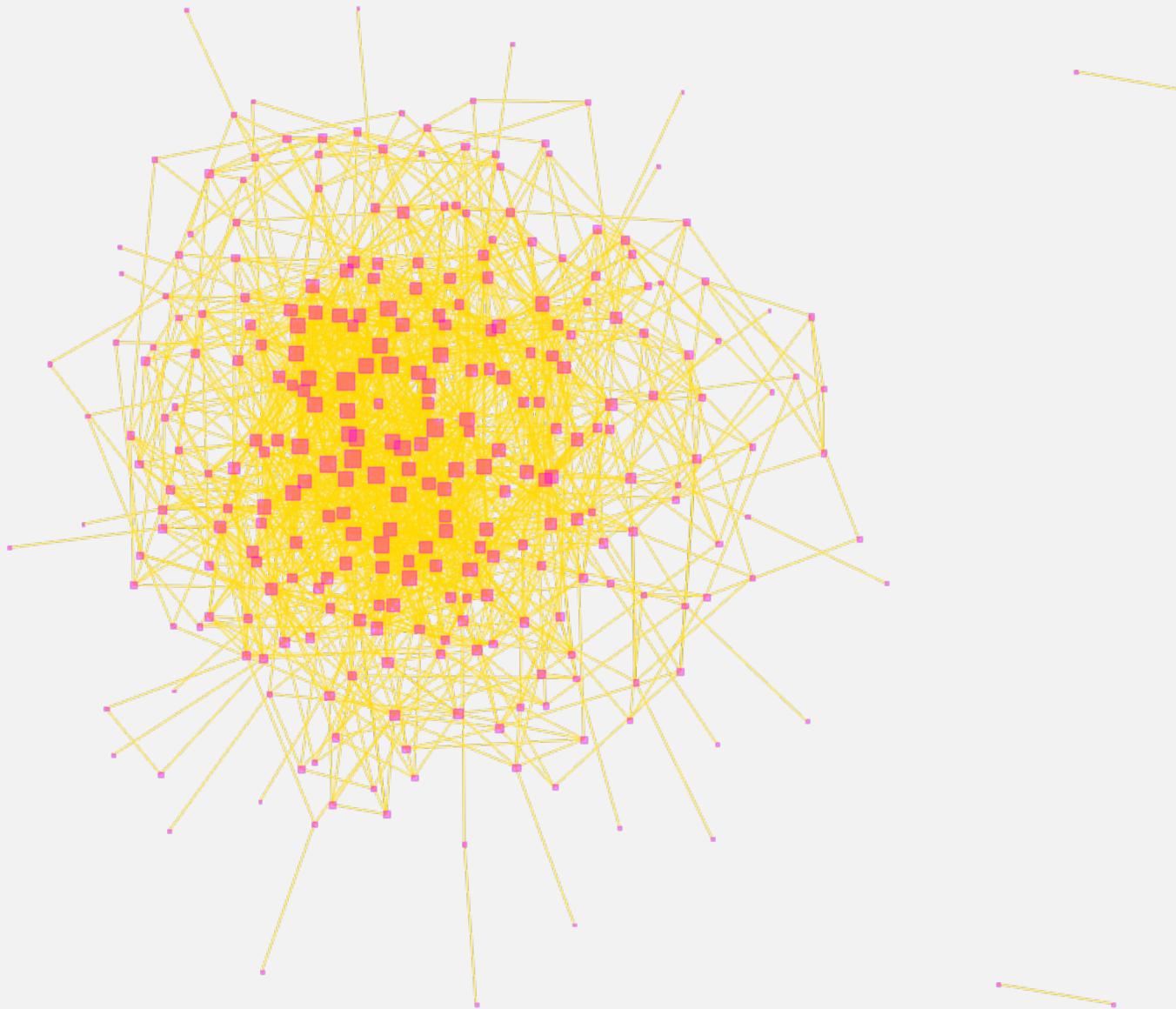
The Largest Connected Component of the Co-Actorship (by titles) Graph
in 322 imdb best Korean movies
(only labels of actors in more than 20 co-actorships are shown)



PRUNED LARGEST CONNECTED COMPONENT

- Lime stars
 - Actors
- Connections
 - Between two actors that share a common title
- Pruned
 - Degree less than 20 removed

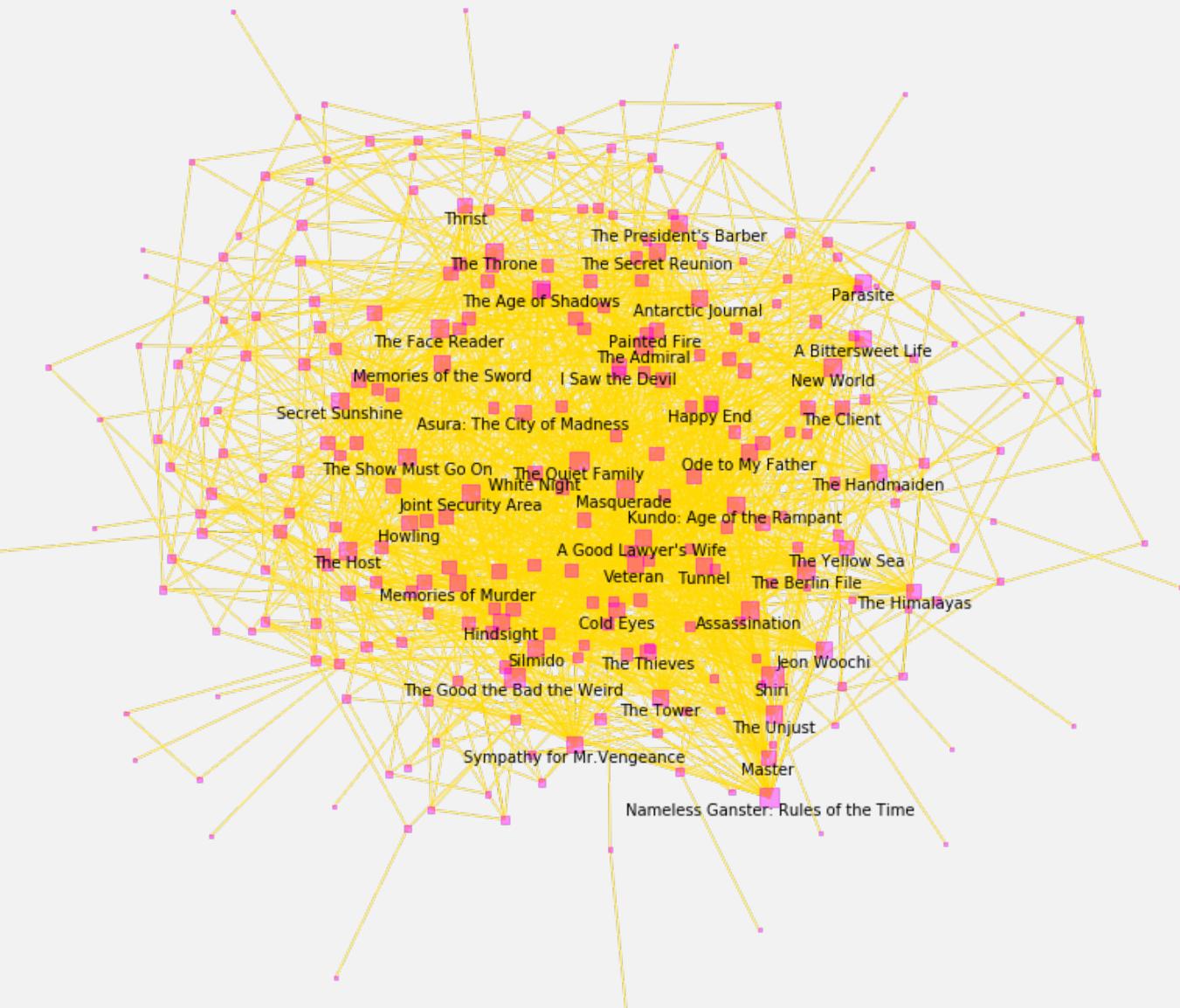
The Graph of Titles with Common Actors
in 322 imdb best Korean movies



NETWORK OF TITLES WITH COMMON ACTORS

- 294 Nodes and 1655 edges
 - Magenta squares: titles
 - Connection: pairs of titles with common actors
- Weighted multigraph
- Not connected
 - 3 connected components
 - largest component
 - 290 nodes
 - 1653 edges

The Largest Connected Component of the Graph of Titles with Common Actors
in 322 imdb best Korean movies
(only labels of titles with more than 20 common actors are shown)



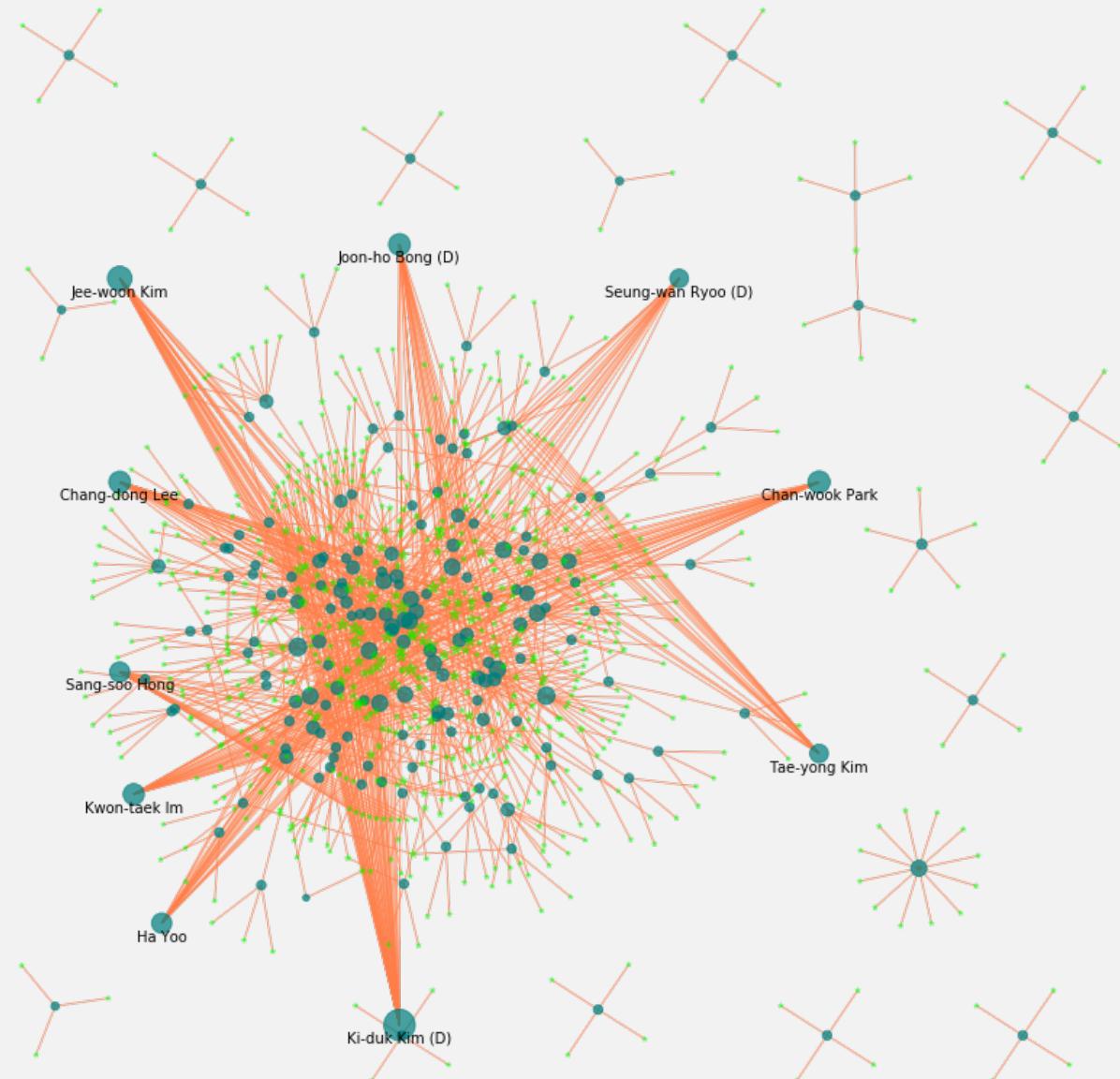
PRUNED LARGEST CONNECTED COMPONENT

- Magenta squares
 - Titles
- Connections
 - Between two titles that share a common actor
- Pruned
 - Degree less than 20 removed

BIPARTITE GRAPH OF DIRECTORS VS. ACTORS

- 903 nodes
 - 186 directors
 - 717 actors
- Bipartite
- Not connected
 - 18 connected components
 - Largest connected component
 - 808 nodes
 - 168 directors
 - 608 actors

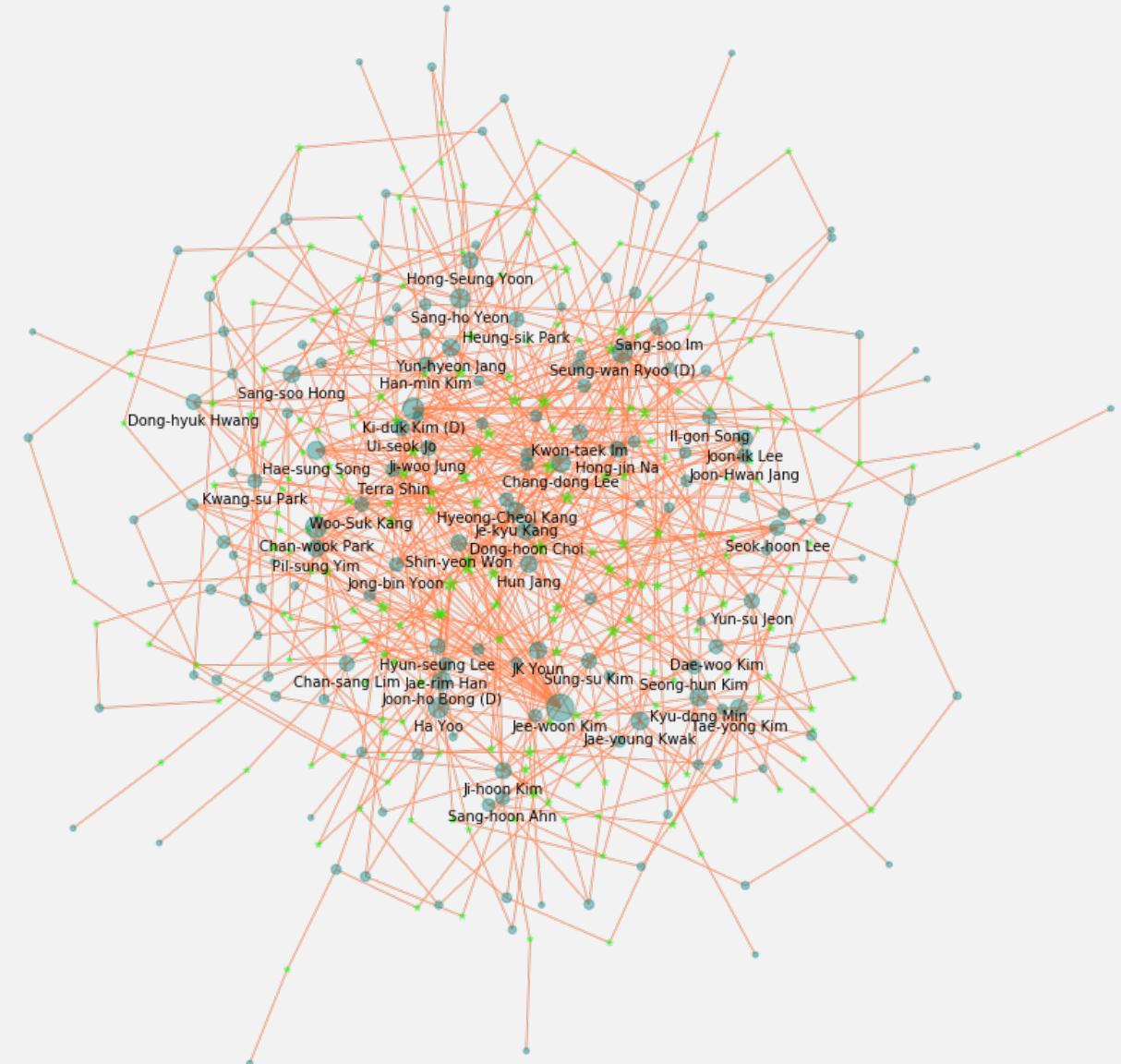
The Graph of Directors vs. Actors
in 322 imdb best Korean movies
(only labels of directors with more than 15 common actors are shown)



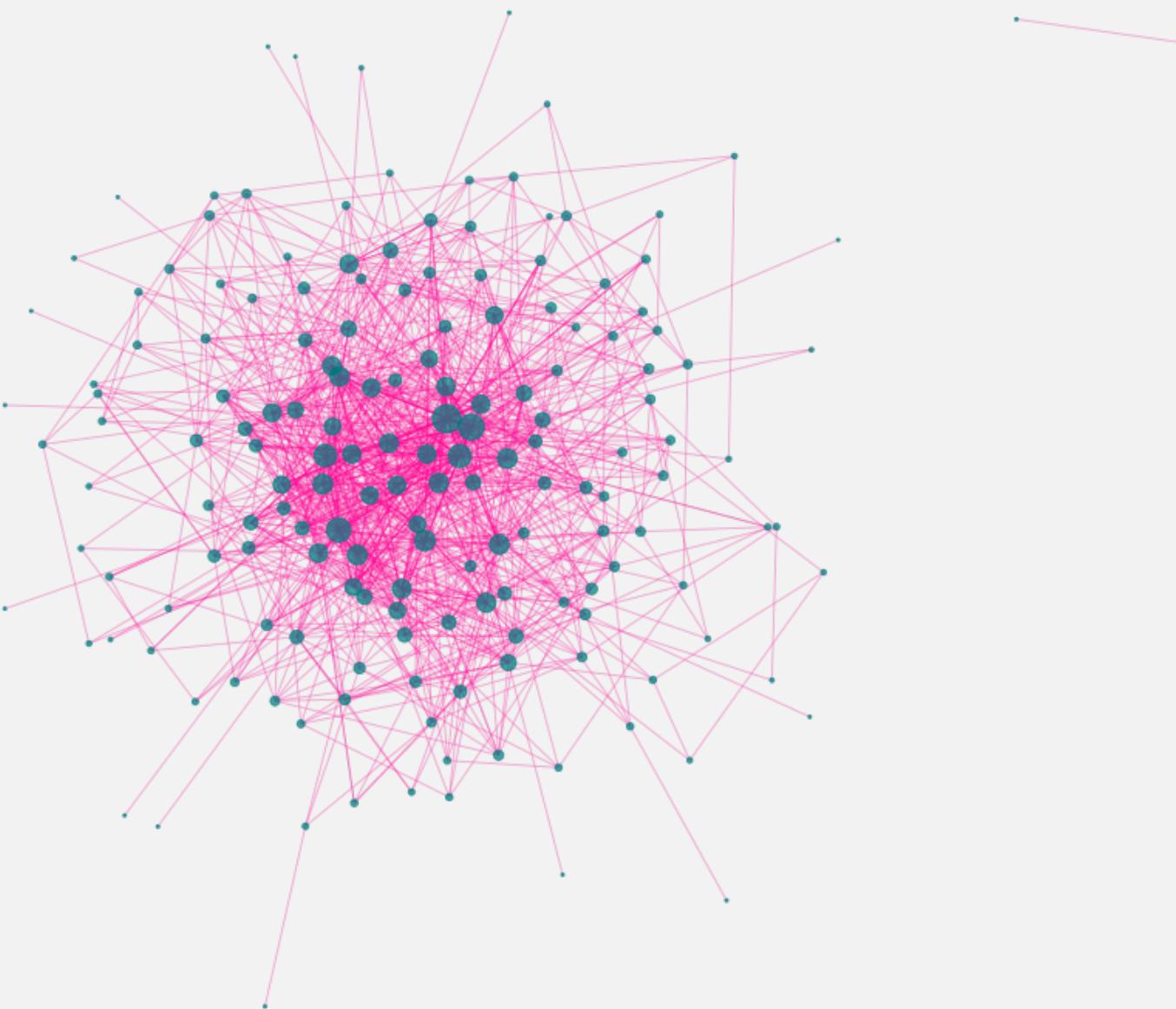
PRUNED LARGEST CONNECTED COMPONENT

- Teal circles
 - directors
 - Lime stars
 - Actors

The pruned largest connected component of the graph of Directors vs. Actors in 322 imdb best Korean movies
(only labels of directors with more than five common actors are shown)



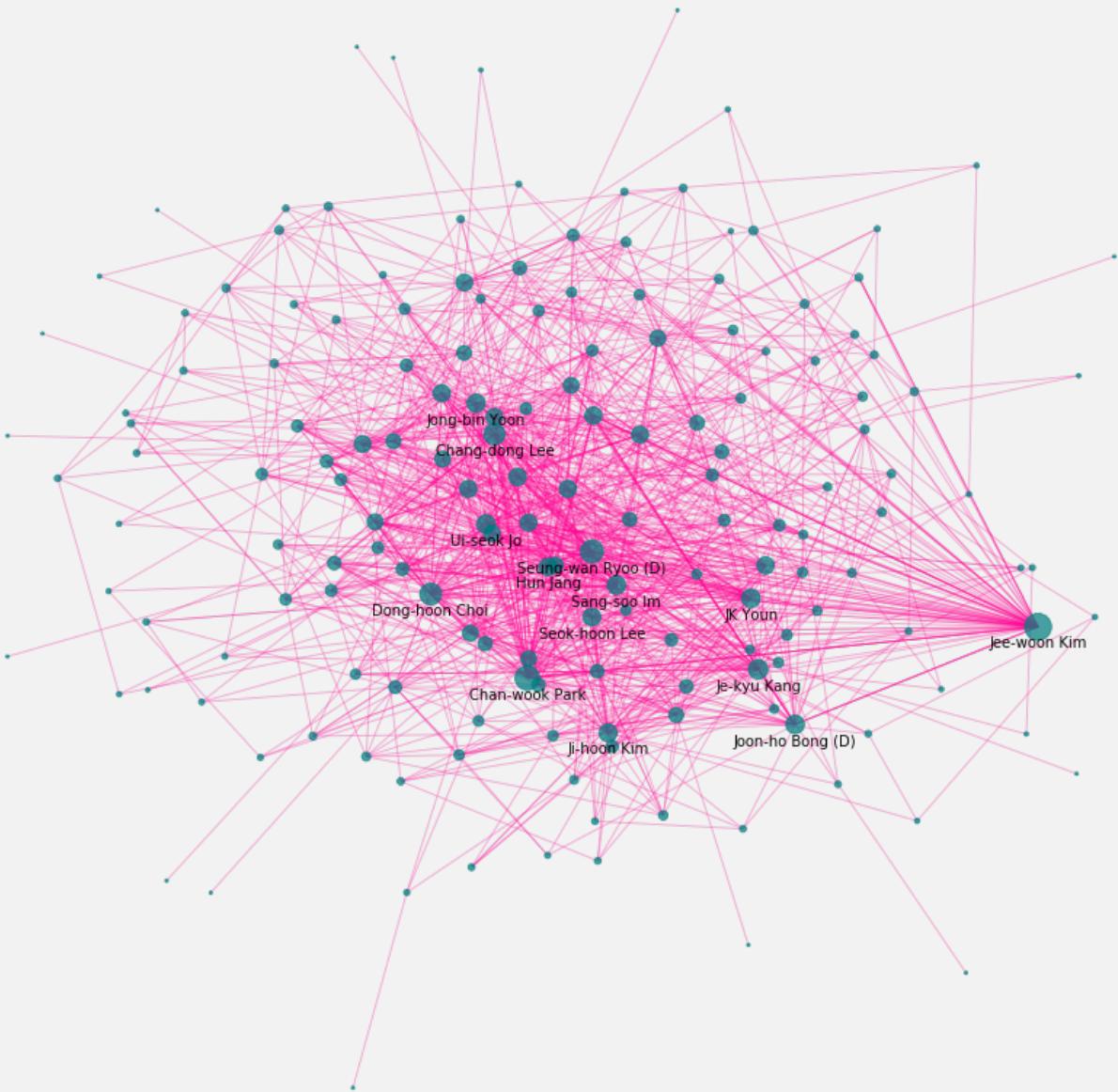
The Co-Directorship (by actors) Graph
in 322 imdb best Korean movies



NETWORK OF DIRECTORS WITH COMMON ACTORS

- 170 Nodes and 1258 edges
 - Teal circles: directors
 - Connections: pairs of directors with common actors
- Weighted multigraph
- Not connected
 - 2 connected components
 - largest component
 - 168 nodes
 - 1257 edges

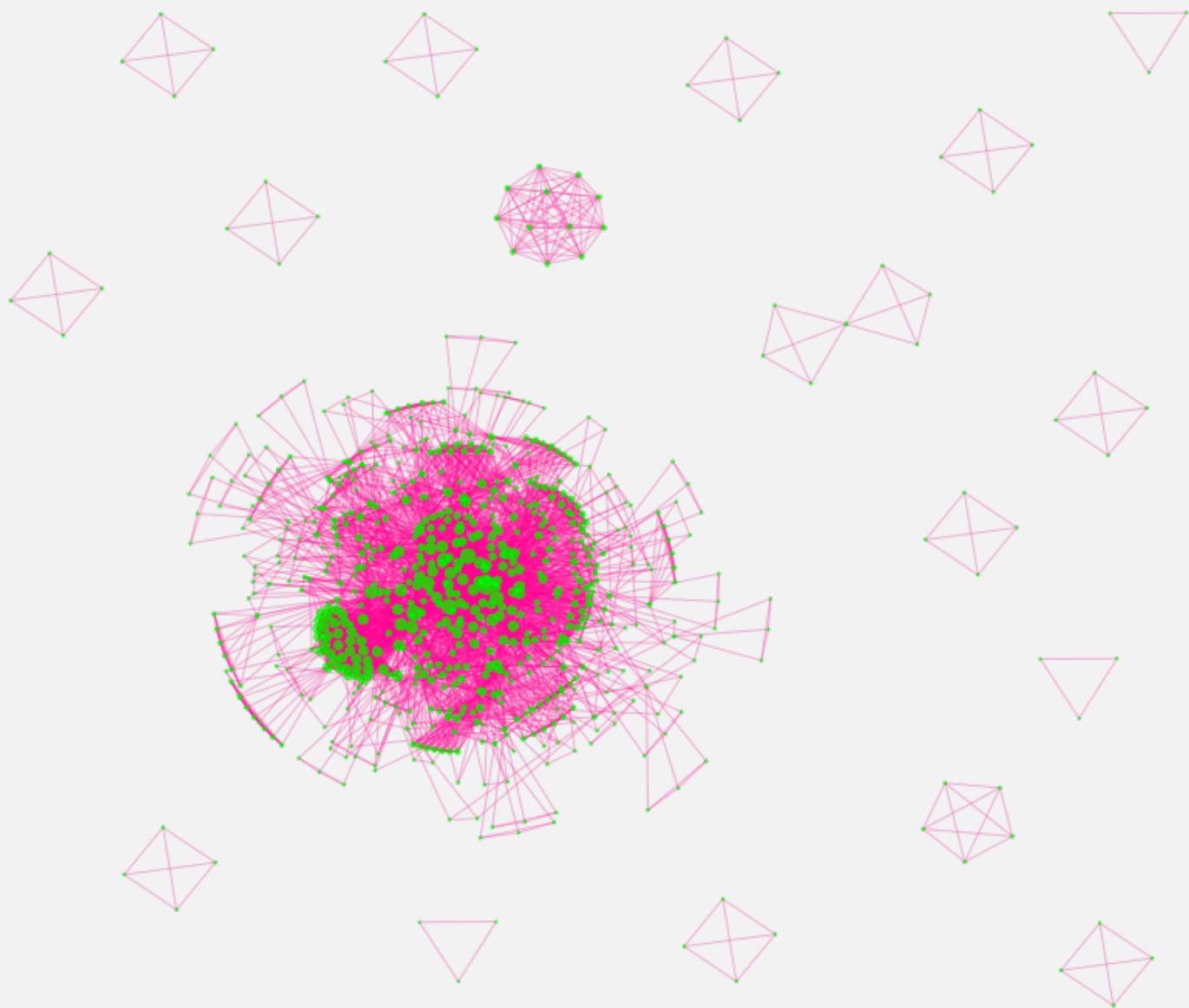
The Largest Connected Component of the Co-Directorship (by actors) Graph
in 322 imdb best Korean movies
(only labels of directors that share actors with more than 35 directors are shown)



PRUNED LARGEST CONNECTED COMPONENT

- Teal circles
 - Directors
- Connections
 - Between two directors that share a common actor
- Pruned
 - Degree less than 35 removed

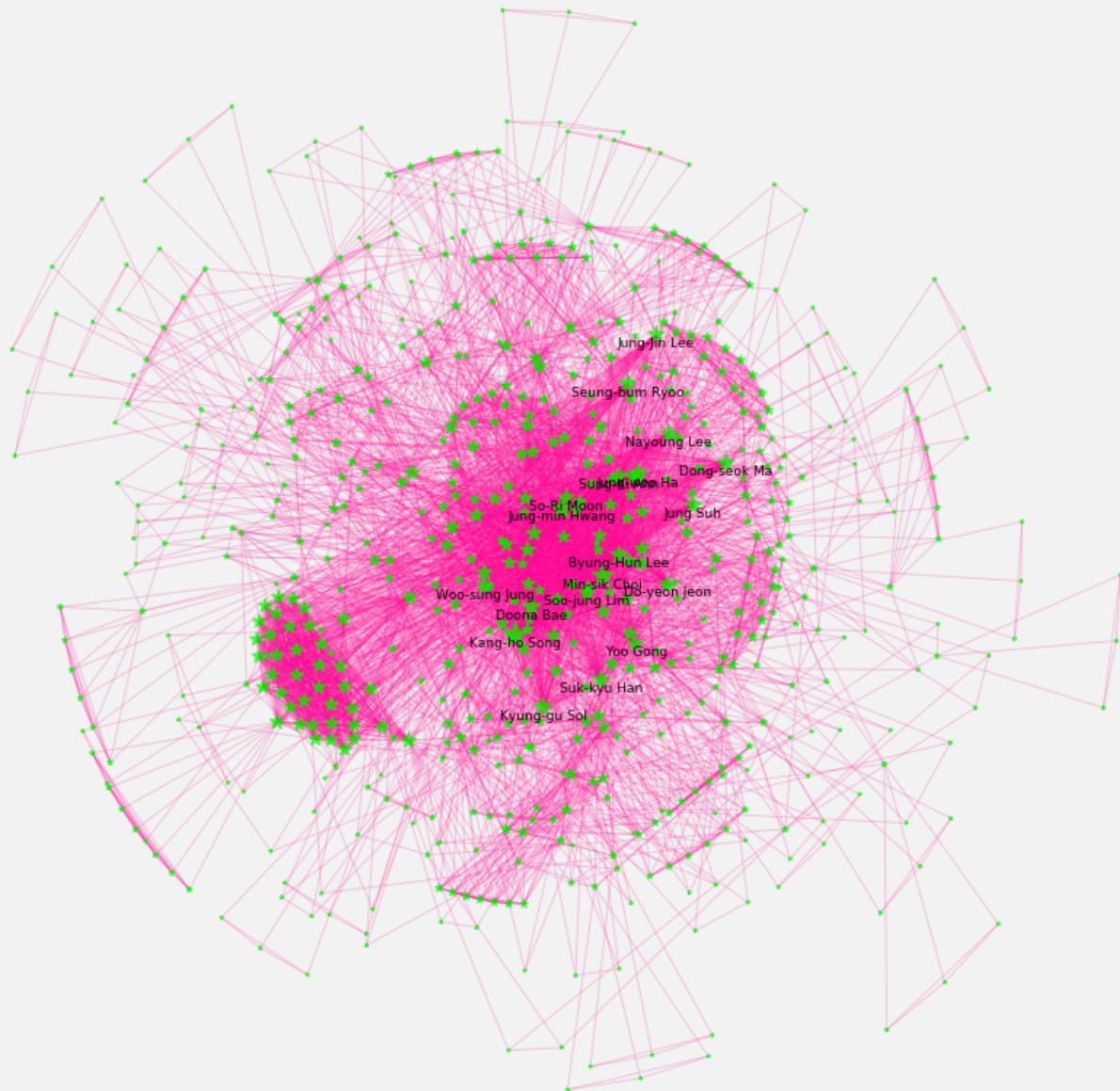
The Co-Actorship (by directors) Graph
in 322 imdb best Korean movies



NETWORK OF ACTORS WITH COMMON DIRECTORS

- 717 Nodes and 5853 edges
 - Lime stars: actors
 - Connections: pairs of actors with common directors
- Weighted multigraph
- Not connected
 - 18 connected components
- largest component
 - 640 nodes
 - 5690 edges

The Largest Connected Component of the Co-Actorship (by directors) Graph
in 322 imdb best Korean movies
(only labels of actors that share directors with more than 60 actors are shown)



PRUNED LARGEST CONNECTED COMPONENT

- Lime stars
 - actors
- Connections
 - Between two actors that share a common director
- Pruned
 - Degree less than 60 removed

LONGITUDINAL CO- ACTORSHIP (BY TITLE) NETWORKS

6 intervals of years

1990 - 1999

2000 – 2003

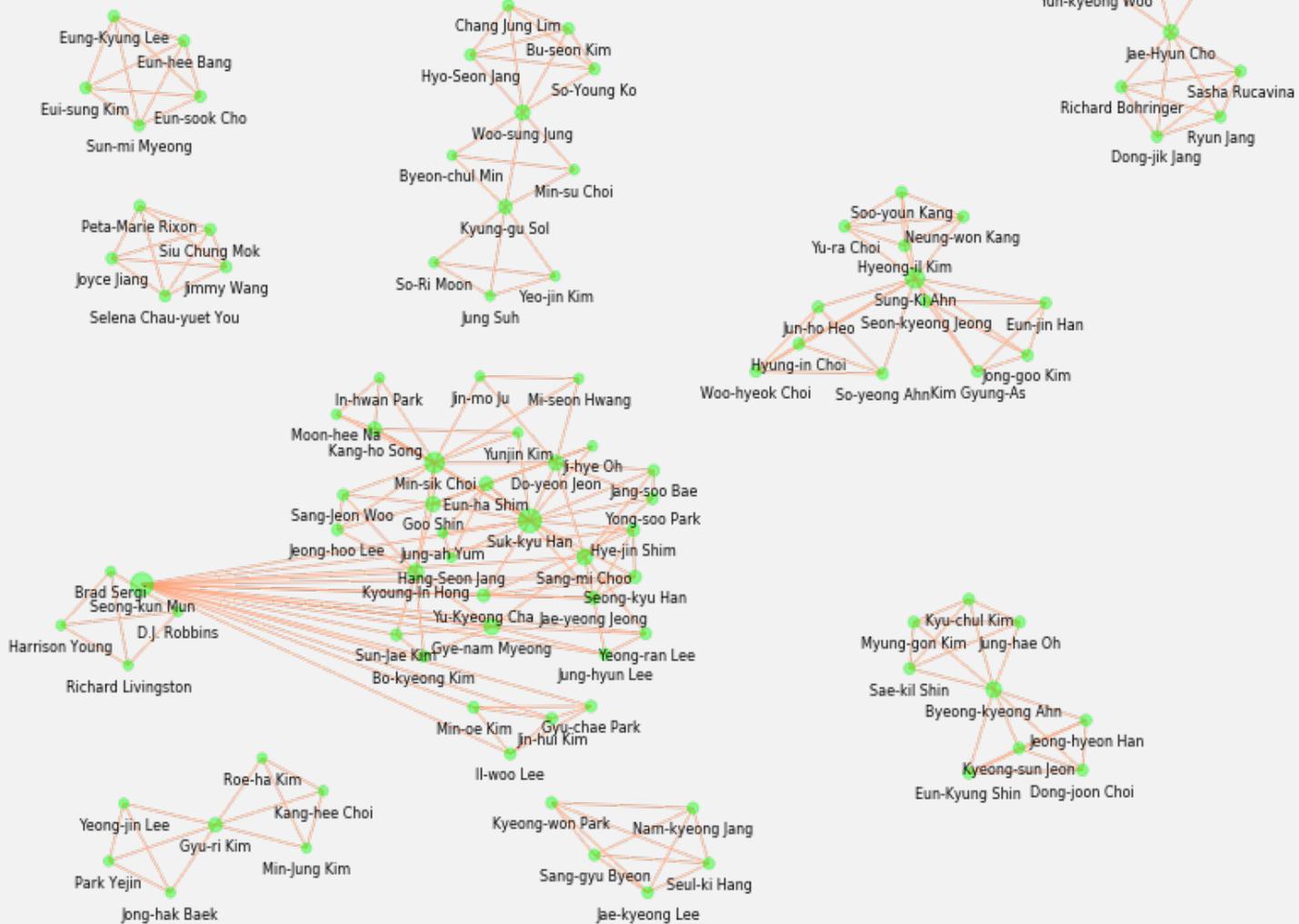
2004 – 2007

2008 - 2011

2012 – 2015

2016 - 2019

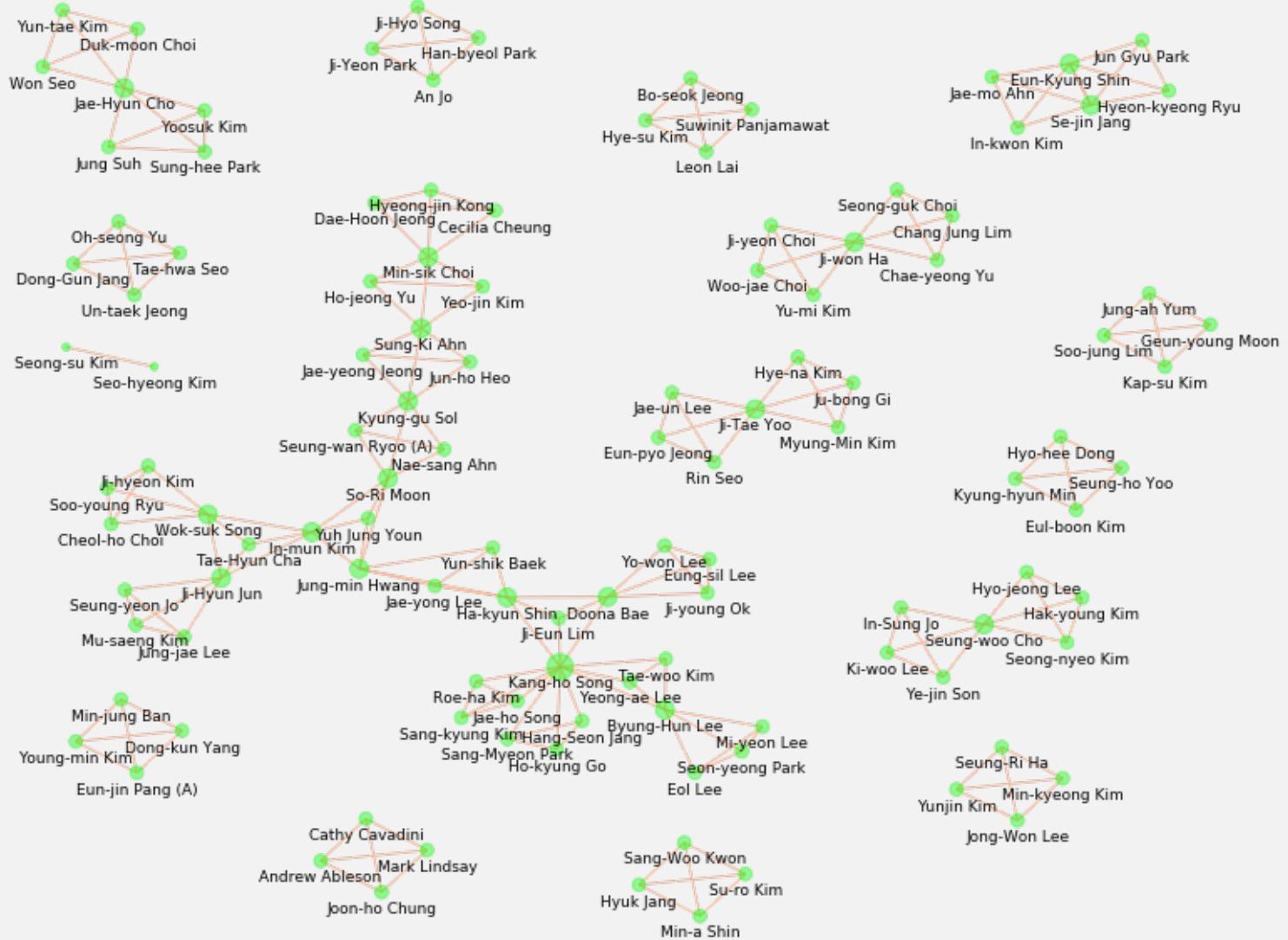
The Co-Actorship (by titles) Graph in the period 1990-1999
in 322 imdb best Korean movies



CO-ACTORSHIP GRAPH IN 1990-1999

- 101 Nodes and 231 edges
- Lime stars: actors
- Connections: co-actorship by titles
- Weighted multigraph
- Not connected
- 10 connected components
- largest component
 - 34 nodes
 - 95 edges

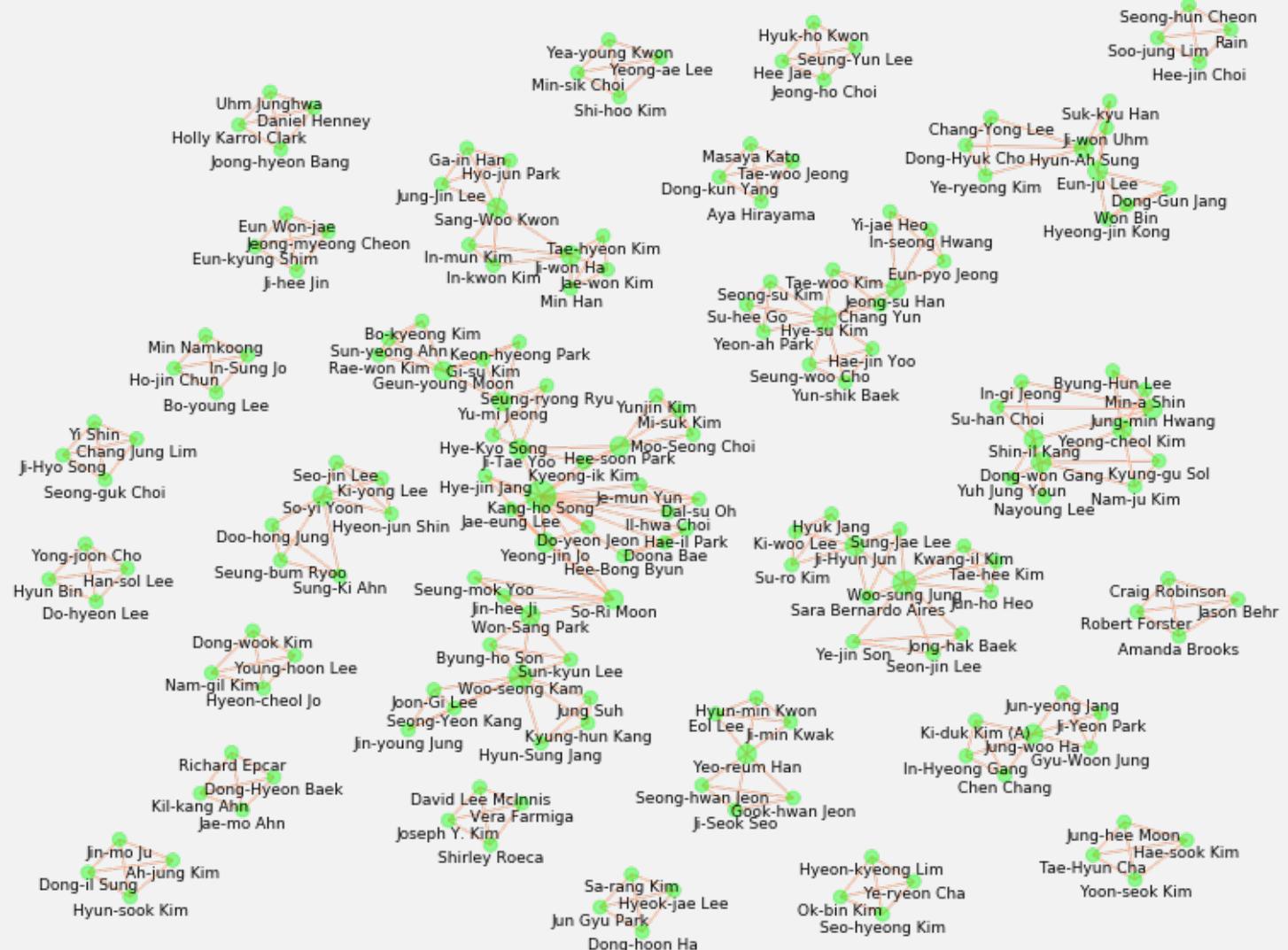
The Co-Actorship (by titles) Graph in the period 2000-03
in 322 imdb best Korean movies



CO-ACTORSHIP GRAPH IN 2000-2003

- 118 Nodes and 205 edges
- Lime stars: actors
- Connections: co-actorship by titles
- Weighted multigraph
- Not connected
 - 16 connected components
 - largest component
 - 46 nodes
 - 90 edges

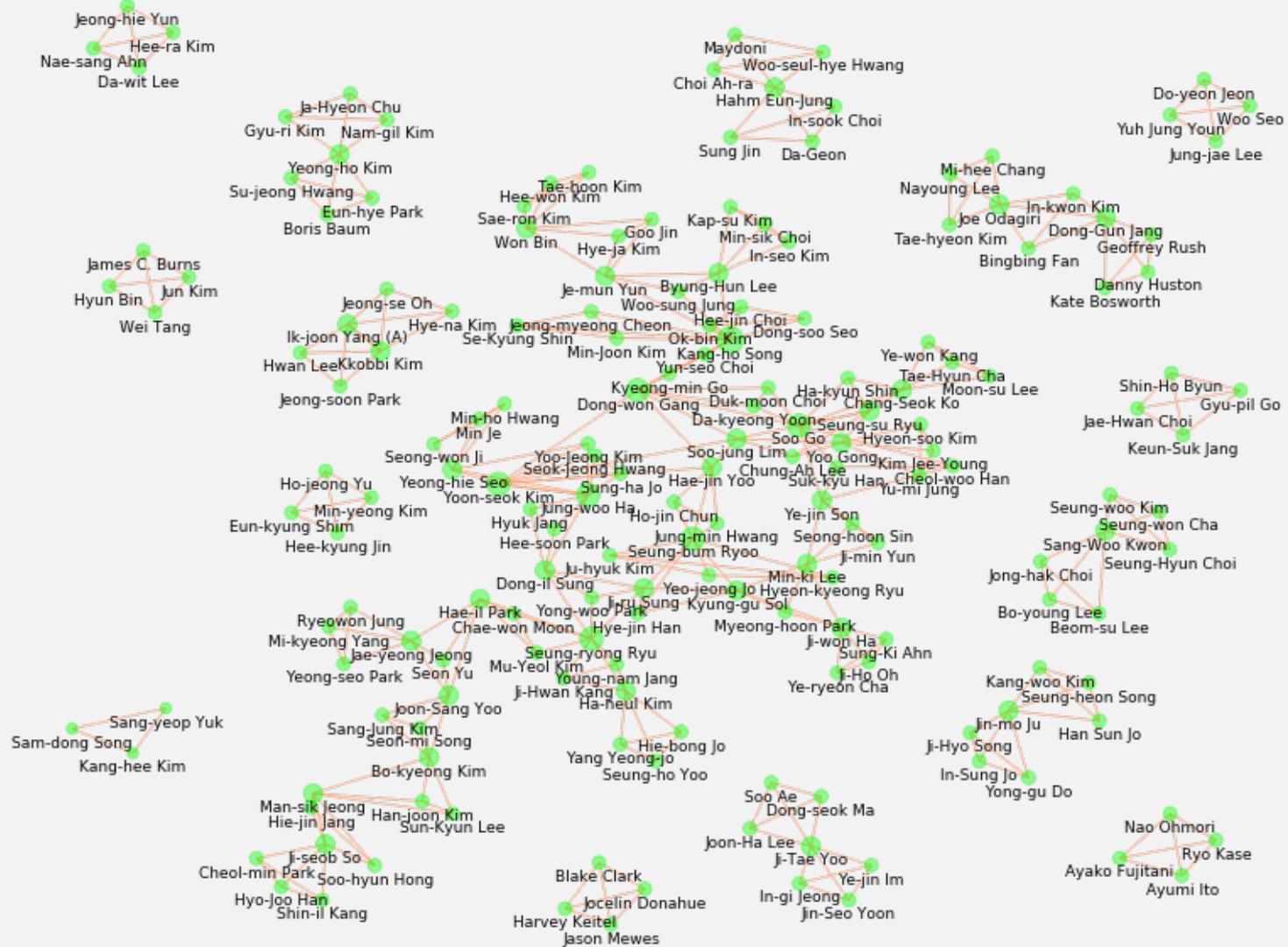
The Co-Actorship (by titles) Graph in the period 2004-07
in 322 imdb best Korean movies



CO-ACTORSHIP GRAPH IN 2004-2007

- 186 Nodes and 324 edges
 - Lime stars: actors
 - Connections: co-actorship by titles
- Weighted multigraph
- Not connected
 - 26 connected components
 - largest component
 - 39 nodes
 - 78 edges

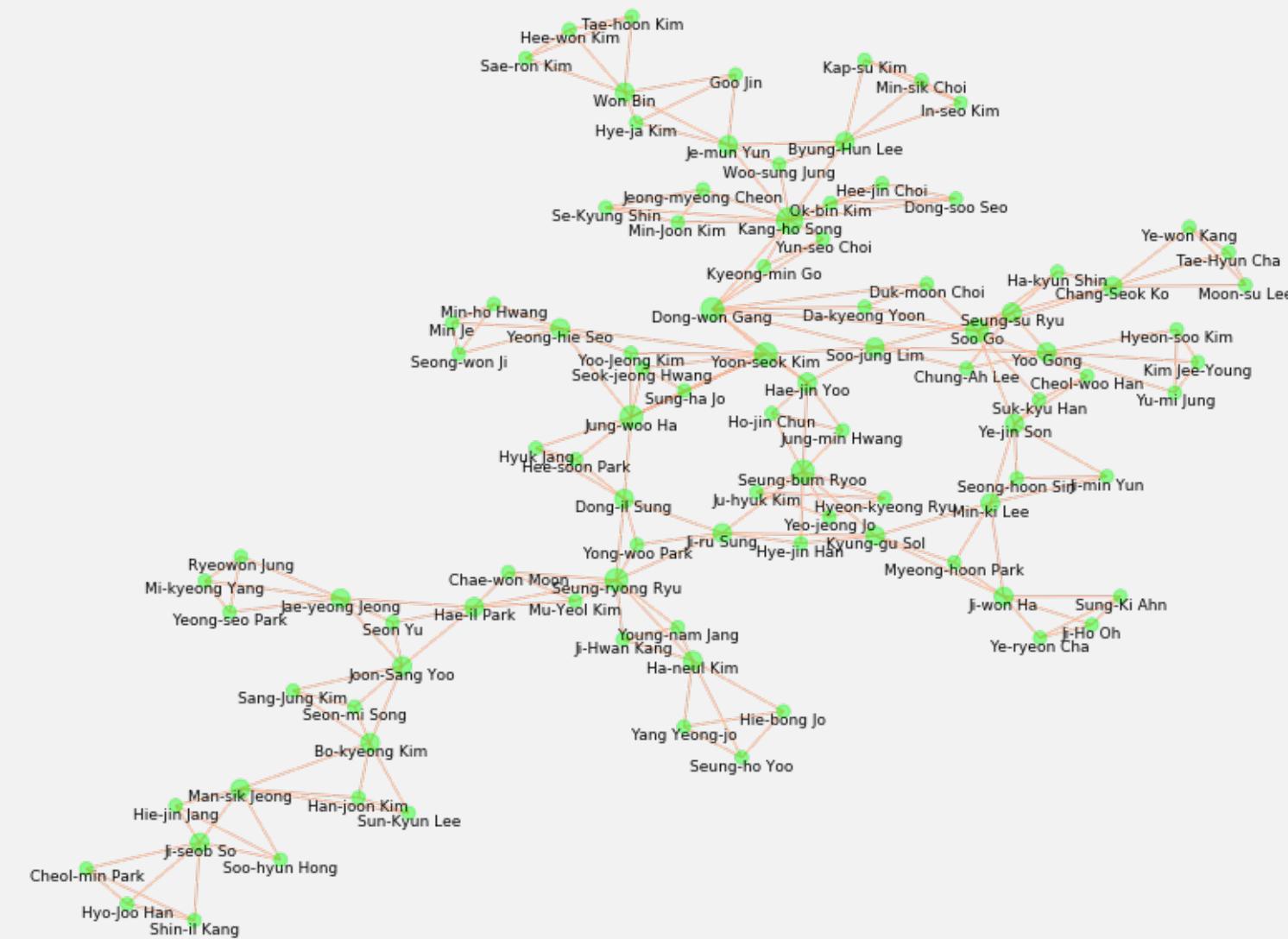
The Co-Actorship (by titles) Graph in the period 2008-11
in 322 imdb best Korean movies



CO-ACTORSHIP GRAPH IN 2008-2011

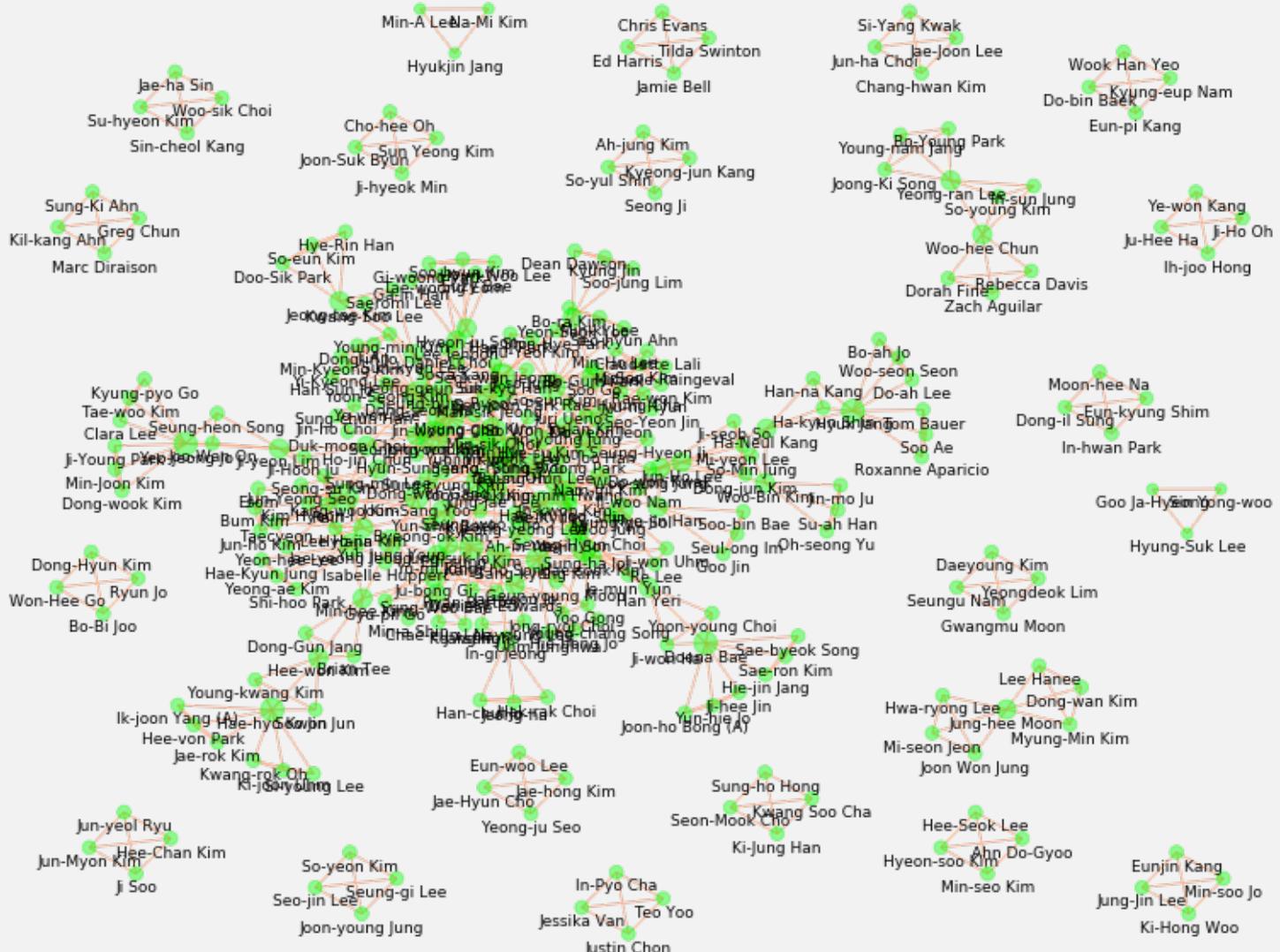
- 181 Nodes and 339 edges
- Lime stars: actors
- Connections: co-actorship by titles
- Weighted multigraph
- Not connected
 - 16 connected components
 - largest component
 - 99 nodes
 - 204 edges

The largest connected component of the Co-Actorship (by titles) Graph in the period 2008-11
in 322 imdb best Korean movies



LARGEST
COMPONENT OF
CO-ACTORSHIP
GRAPH IN
2008-2011

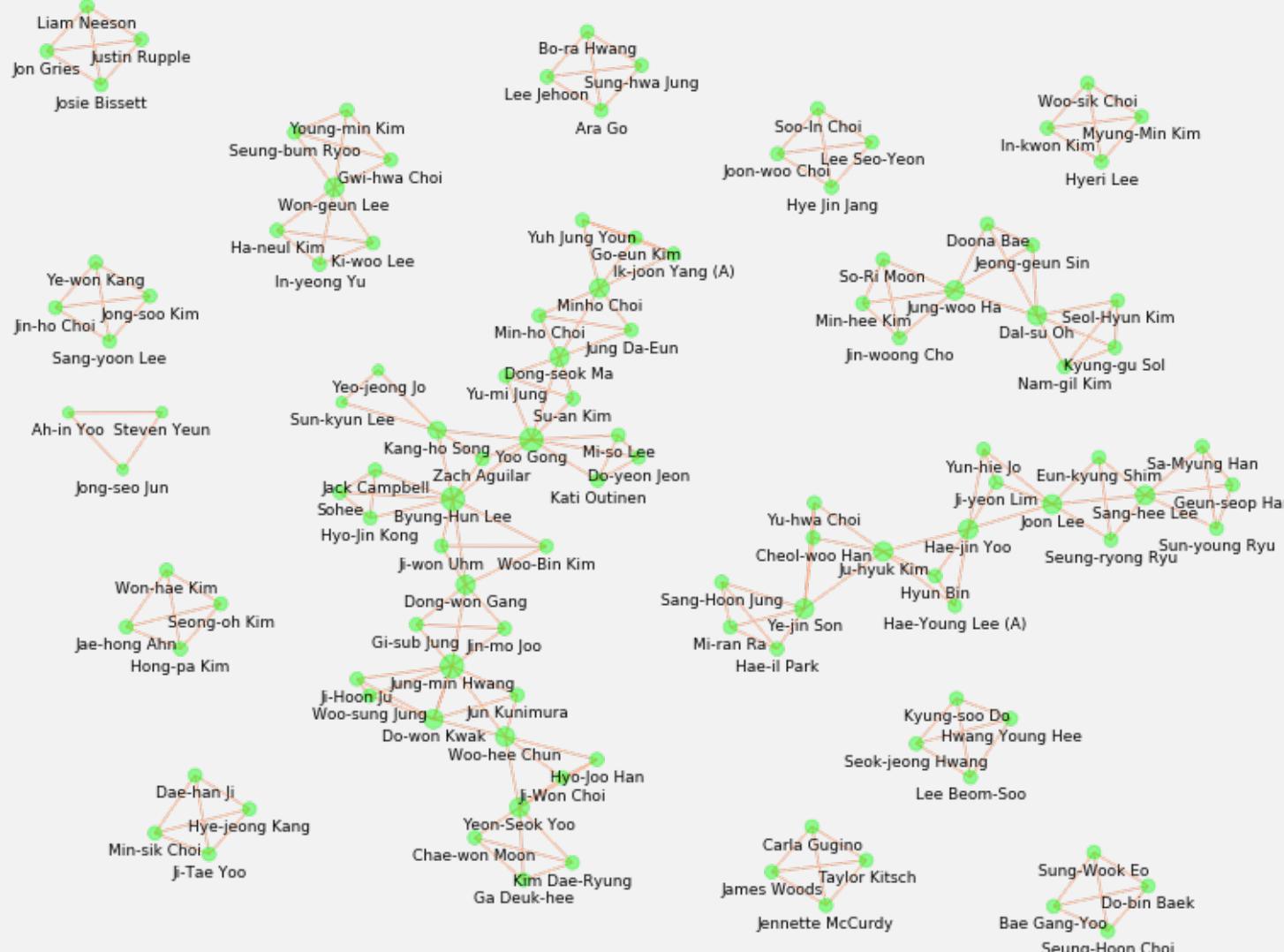
The Co-Actorship (by titles) Graph in the period 2012-15
in 322 imdb best Korean movies



CO-ACTORSHIP GRAPH IN 2012-2015

- 303 Nodes and 642 edges
- Lime stars: actors
- Connections: co-actorship by titles
- Weighted multigraph
- Not connected
- 23 connected components
- largest component
 - 208 nodes
 - 498 edges

The Co-Actorship (by titles) Graph in the period 2016-19
in 322 imdb best Korean movies



CO-ACTORSHIP GRAPH IN 2016-2019

- 117 Nodes and 203 edges
- Lime stars: actors
- Connections: co-actorship by titles
- Weighted multigraph
- Not connected
 - 15 connected components
 - largest component
 - 38 nodes
 - 74 edges