GRAPH DRAWING CONTEST

2020 report

gd 20

CONTEST COMMITTEE

Philipp Kindermann
University of Würzburg

Tamara Mchedlidze
Karlsruhe Institute of Technology

Wouter Meulemans
TU Eindhoven

Ignaz Rutter
University of Passau

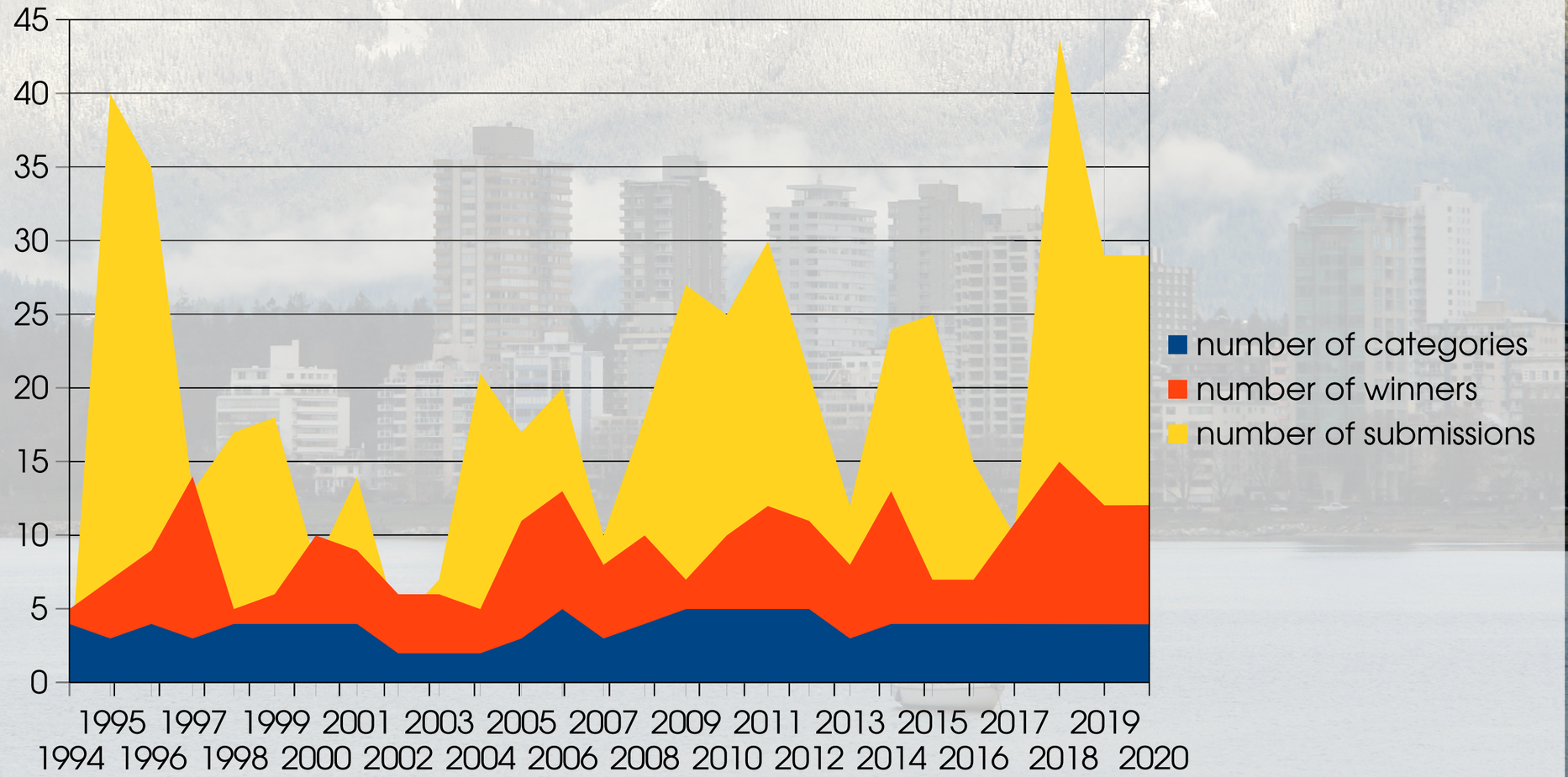
GRAPH DRAWING CONTEST

historic perspective

gd 20

GRAPH DRAWING CONTEST

historic perspective



GRAPH DRAWING CONTEST

historic perspective

1994 Uwe Wuerker • Stefan Hougardy • Petra Mutzel & Thomas Odenthal • Georg Sander

1995 Falk Schreiber & Carsten Friedrich • Vladimir Batagelj & Andrej Mrvar • Paulis Kikusts & Peteris Rucevskis • Georg Sander

1996 Ulrich Fößmeier & Michael Kaufmann • Vladimir Batagelj & Andrej Mrvar • Falk Schreiber & Carsten Friedrich • Thomas Kamps, Jörg Kleinz & Thomas Reichenberger

1997 B. Bascary, B. Cattan, A. Cohen-Solal, M. Philip & H. Szigeti • Vladimir Batagelj & Andrej Mrvar • Michael Kaufmann & Gunnar Klau • Thomas Ziegler & Petra Mutzel • Cristian Ghezzi • Falk Schreiber & Carsten Friedrich

1998 Vladimir Batagelj & Andrej Mrvar • Petrus Abri Santoso & Andi Surjanto • Roland Wiese

1999 Vladimir Batagelj & Andrej Mrvar • Ulrik Brandes • Karlis Freivalds & Paulis Kikusts • Rowena Mankelow

2000 Nikola S. Nikolov • Vladimir Batagelj & Andrej Mrvar • Jan Adamec • C. Duncan, P. Gajer, M. Goodrich & S. Kobourov • Robby Schönfeld & Nikola S. Nikolov

2001 Ulrik Brandes & Marco Gärtler • C. Gutwenger, K. Klein, J. Kupke & S. Leipert • Roland Wiese • Carsten Friedrich • Merijam Percan

2002 Daniel Gmach • Paul Holleis & Thomas Zimmermann • Nikola S. Nikolov & Patrick Healey • Christoph Vogt

2003 Daniel Gmach, Paul Holleis & Thomas Zimmermann • Christian Kuklas, Dirk Koschützki & Falk Schreiber

2004 Andrei Grecu & Gunnar Klau • Ulrik Brandes, Daniel Fleischer & Thomas Puppe

2005 Markus Chimani, Carsten Gutwenger & Karsten Klein • V. Batagelj, A. Mrvar, A. Ahmed, X. Fu, S. Hong & D. Merrick • Marco Gärtler & Markus Krug

2006 Michael McGuffin • Adel Admed, Seok-Hee Hong, Quan Nguyen & Donald Taylor • Adel Admed, Xiaoyan Fu, Seok-Hee Hong, Quan Nguyen & Kai Xu • Fabrizio Frati & Markus Geyer • Andreas Gerasch & team

2007 Wolfgang Brunner & Jens Schmidt • Robert Theron, Rodrigo Santamaria, Juan Garcia, Diego Gomez & Vadim Paz-Madrid • Felix Heinen

2008 Yifan Hu & Emden Gansner • Melanie Badent & Pietro Palladino • Melanie Badent, Martin Mader & Christian Piech • Hoi-Ming Wong, Markus Chimani & Karsten Klein

2009 Hui Liu • Nicholas Jefferson • Melanie Badent & Michael Baur • Hoi-Ming Wong & Karsten Klein • Joe Fowler

2010 Quan Nguyen • Sergey Pupyrev • M. Baur, M. Siebenhaller, R. Wiese & Thomas Wurst • Petra Mutzel & Hoi-Ming Wong • Maarten Löffler & Martin Nöllenburg

2011 Hanley Weng • M. Löffler, D. Eppstein, M. Goodrich & S. Kobourov • R. Zelina, S. Bota, S. Houtman & R. Ban • Sergey Pupyrev • Maarten Löffler & Martin Nöllenburg

2012 Roman Prutkin • Sergey Pupyrev • Remus Zelina, S. Bota, S. Houtman & R. Balaban • Tobias Brinkjost • A. Bauer, I. Rutter, J. Vordermeier & M. Kaufmann

2013 Jos de Jong & Giovanni Pazienza • Remus Zelina, Sebastian Bota, Siebren Houtman & Radu Balaban • Thomas Bläsius & Ignaz Rutter

2014 Martin Nöllenburg • Remus Zelina, Sebastian Bota, Siebren Houtman & Radu Balaban • Tamara Mchedlidze, Martin Nöllenburg, Alexander Khomenko, Igor Karlinsky & Denis Knöpfle • Philipp Kindermann, Fabian Lipp & Wadim Reimche

2015 Tamara Mchedlidze • Jennifer Hood & Pat Morin • Boris Klemz, Ulf Rüegg & Fabian Lipp • Josef Cibulka

2016 Fabian Klute • Jonathan Klawitter & Tamara Mchedlidze • Michael Bekos, Thanasis Lianeas & Chrysanthi Raftopoulou • Johan de Ruiter

2017 Steven Shangzhou Wang • Fabian Klute & Irene Parada • Theresa Fröschl, Jonathan Klawitter & Darren Strash • Almut Demel, Dominik Dürrschnabel, Tamara Mchedlidze, Marcel Radermacher & Lasse Wulf

2018 Evmorfia Argyriou, Michael Baur, Anne Eberle & Armin Gufler • Florian Grötschla, Tamar Mirbach, Christian Ortlieb, Tamara Mchedlidze & Marcel Radermacher • Myroslav Kryven & Johannes Zink • Amadäus Spallek, Christian Geckeler, Henry Förster & Michael Bekos

2019 Evmorfia Argyriou, Michael Baur, Anne Eberle & Armin Gufler • Florian Grötschla, Tamar Mirbach, Christian Ortlieb, Tamara Mchedlidze & Marcel Radermacher • Myroslav Kryven & Johannes Zink • Amadäus Spallek, Christian Geckeler, Henry Förster & Michael Bekos

2020 ?

2020 CONTEST

overview

2020 CONTEST
overview

CREATIVE TOPICS

Hrafnkels Saga

Draw the graph of the genealogy and interactions in the Icelandic Saga.

K-Pop

Draw the graph of relationships between Korean artists, bands, and management and recording companies.

LIVE CHALLENGE

In one hour, draw a number of directed graphs as straight-line upwards embeddings in the plane, minimizing the number of crossings.

manual category

automatic category

2020 CONTEST
overview

CREATIVE TOPICS

Hrafnkels Saga

Draw the graph of the genealogy and interactions in the Icelandic Saga.

5 submissions

K-Pop

Draw the graph of relationships between Korean artists, bands, and management and recording companies.

4 submissions

LIVE CHALLENGE

In one hour, draw a number of directed graphs as straight-line upwards embeddings in the plane, minimizing the number of crossings.

manual category

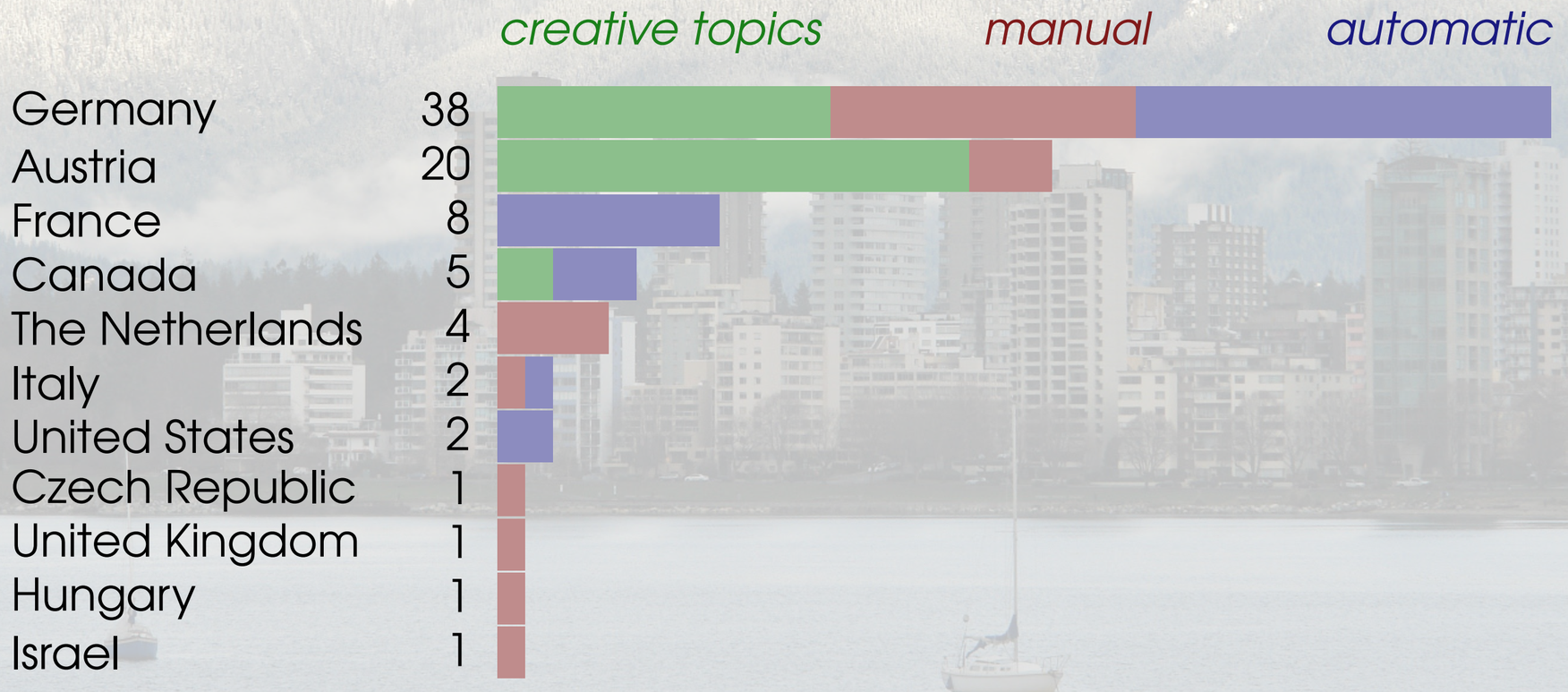
13 submissions

automatic category

7 submissions

2020 CONTEST
overview

Participating individuals per country



CREATIVE TOPICS

Hrafnkels Saga

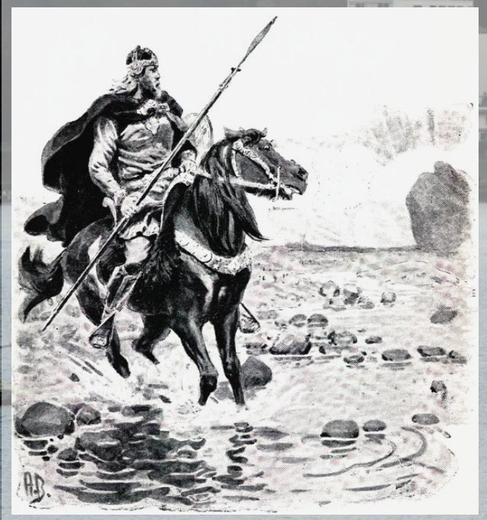
CREATIVE TOPICS

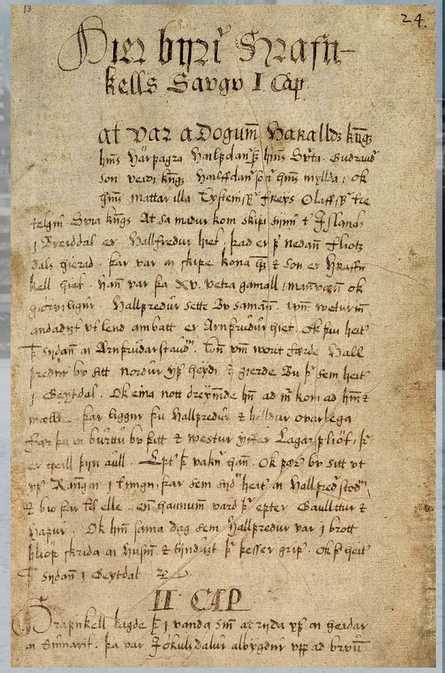
Hrafnkels Saga

The saga tells of struggles between chieftains and farmers in the east of Iceland in the 10th century.

The graph models relationships between the actants of the saga

43 nodes, 110 edges

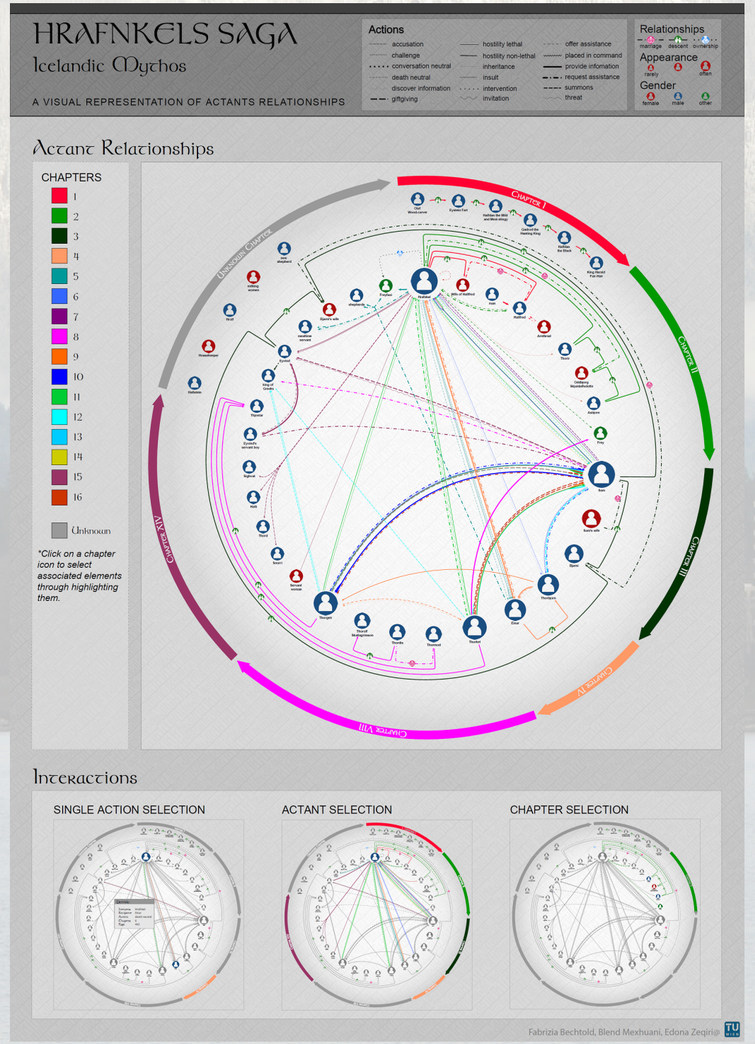




CREATIVE TOPICS

Hrafnkels Saga

4th–5th Place

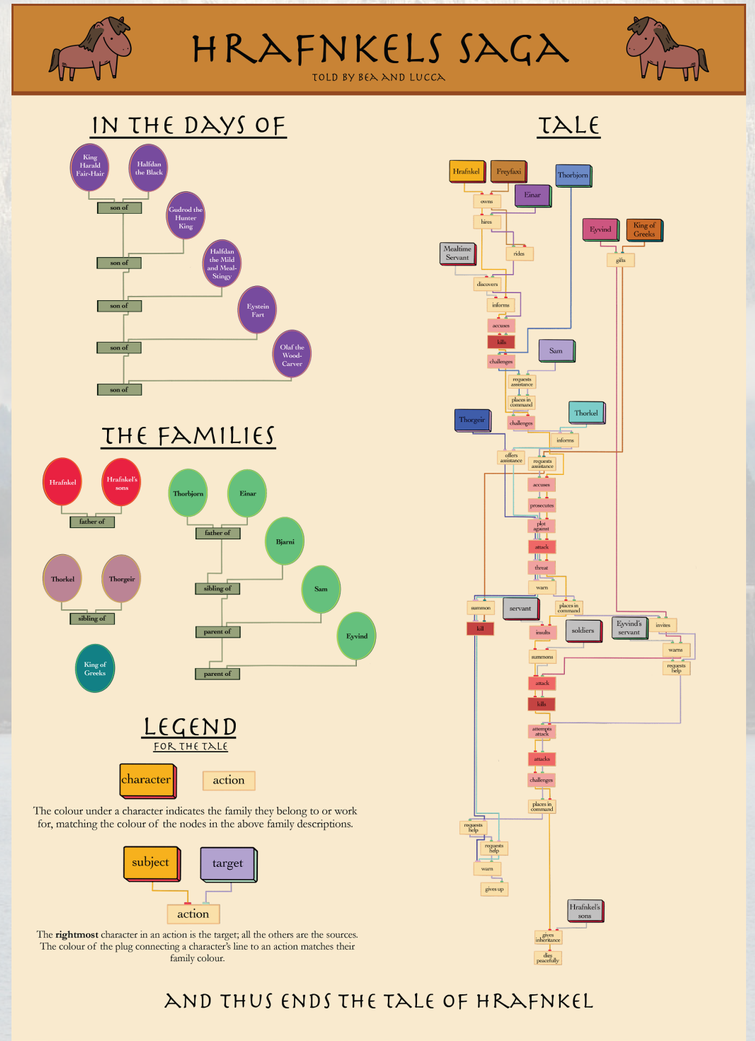


Fabrizia Bechtold,
Blend Mexhuani,
Edona Zeqiri
(TU Wien)

CREATIVE TOPICS

Hrafnkels Saga

4th–5th Place



Lucca Siaudzionis (UBC),
Bea Subion (Dumbledore)

CREATIVE TOPICS

Hrafnkels Saga

3rd Place

Henry Förster,
Axel Kuckuk,
Lena Schlipf
(University of Tübingen)

CREATIVE TOPICS

Hrafnkels Saga

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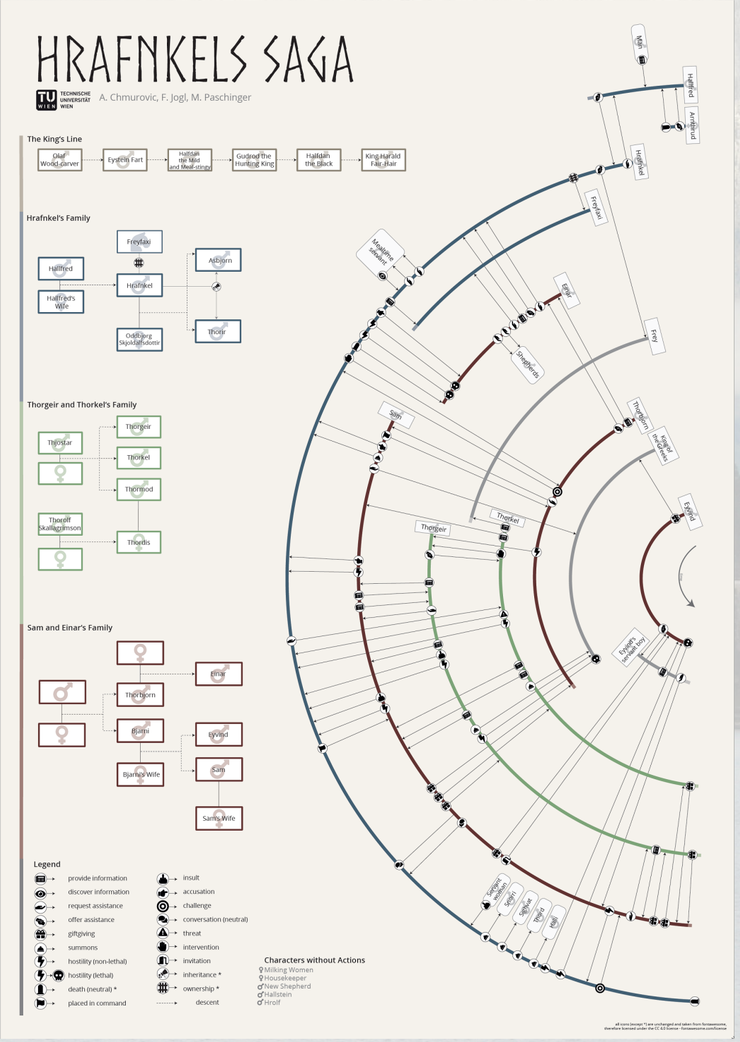
Lena Schlipf
(University of Tübingen)

CREATIVE TOPICS

Hrafnkels Saga

2nd Place



Fabian Jogl,
Melanie Paschinger,
Adrian Chmurovic
(TU Wien)

CREATIVE TOPICS

Hrafnkels Saga

1st Place

Tamara Drucks, Moritz Leidinger, Giulio Pace (TU Wien)

CREATIVE TOPICS

K-Pop

CREATIVE TOPICS

K-Pop

vertices are various actants - performers, bands, producers, promoters, production companies

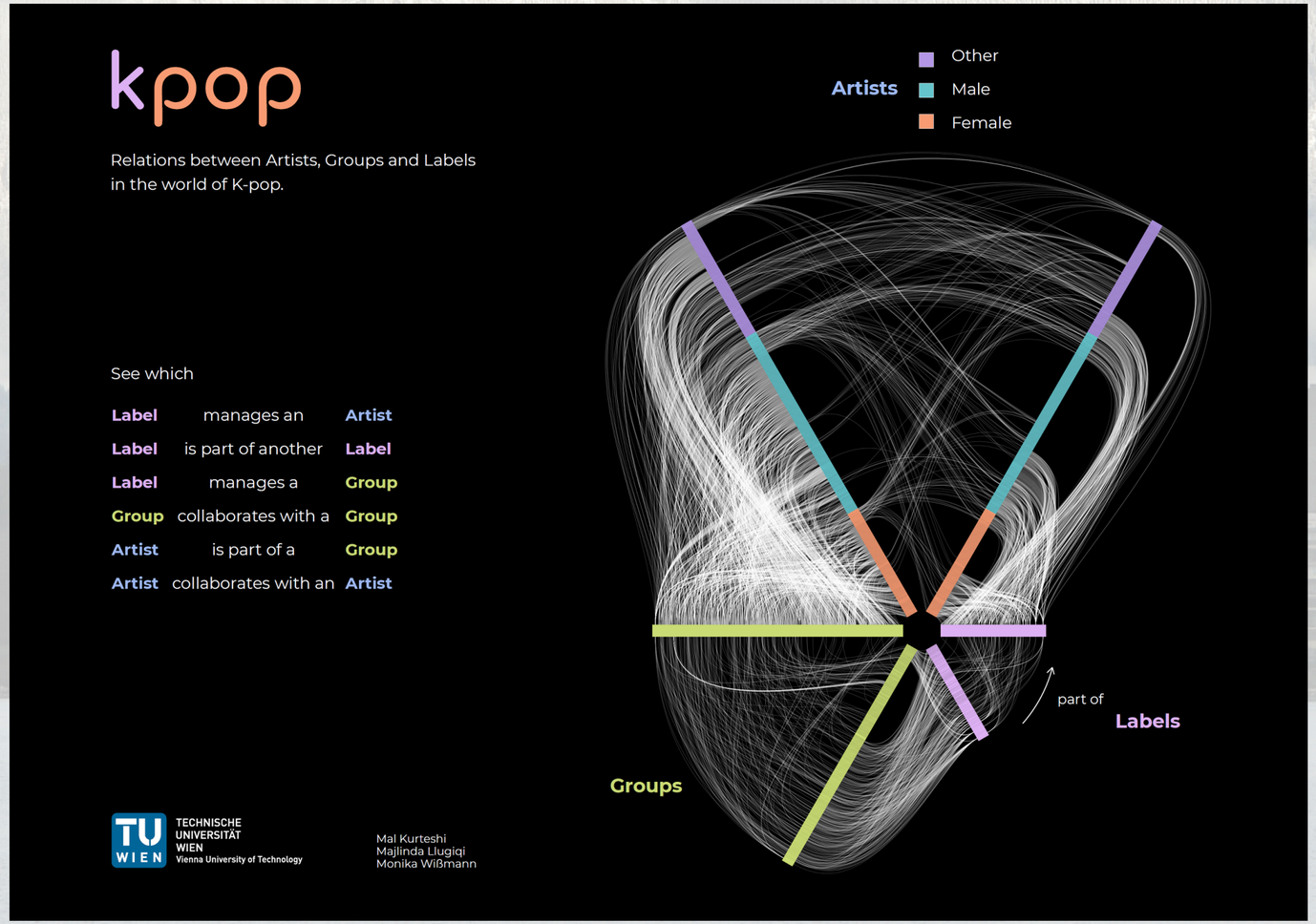
edges express the relationships among actants; band is connected to performer that it contains; a producer is connected to the bands it curates.

4674 nodes, 5094 edges

CREATIVE TOPICS

K-Pop

4th Place

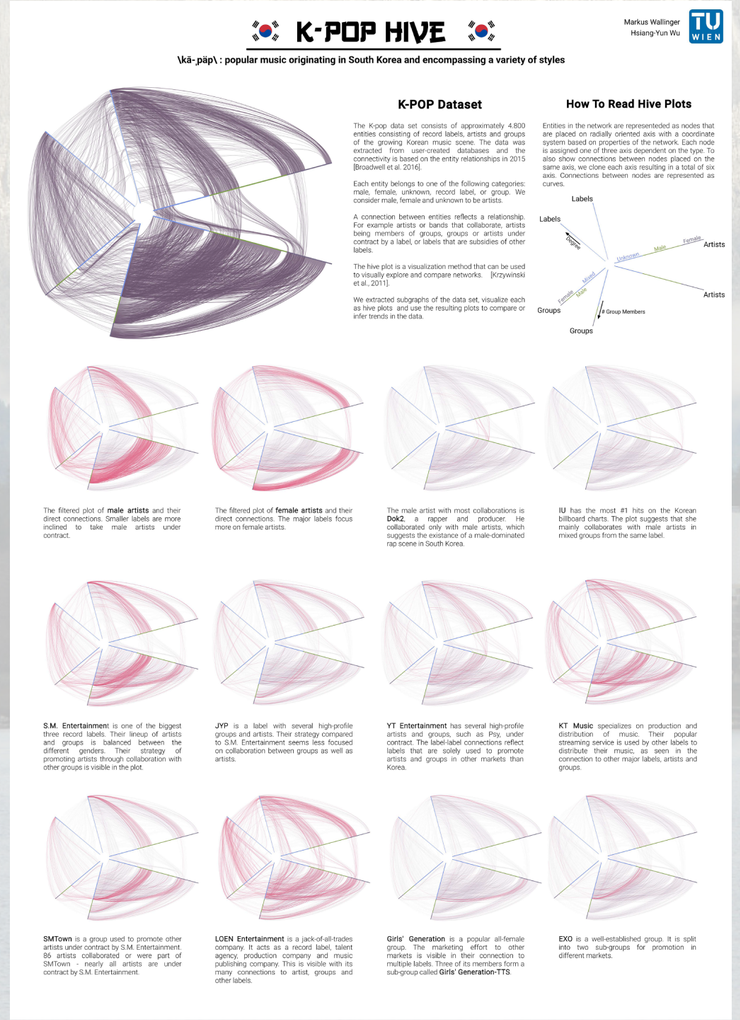


Monika Wißmann, Majlinda Llugiqi, Mal Kurteshi (TU Wien)

CREATIVE TOPICS

K-Pop

3rd Place

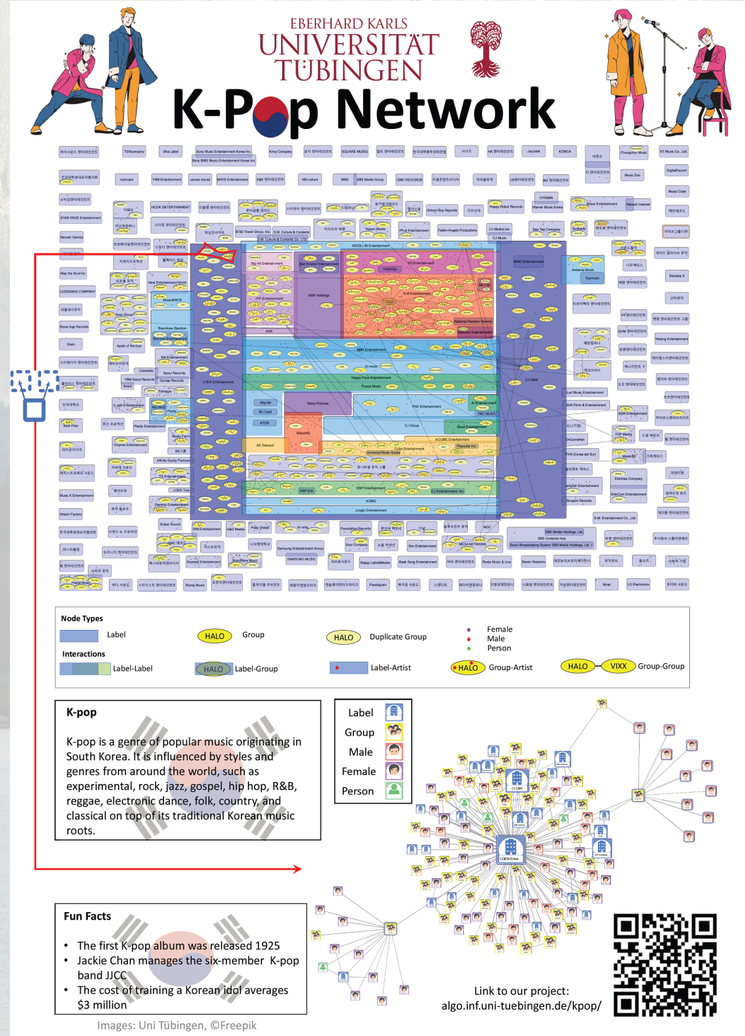


Markus Wallinger,
Hsiang-Yun Wu
(TU Wien)

CREATIVE TOPICS

K-Pop

2nd Place

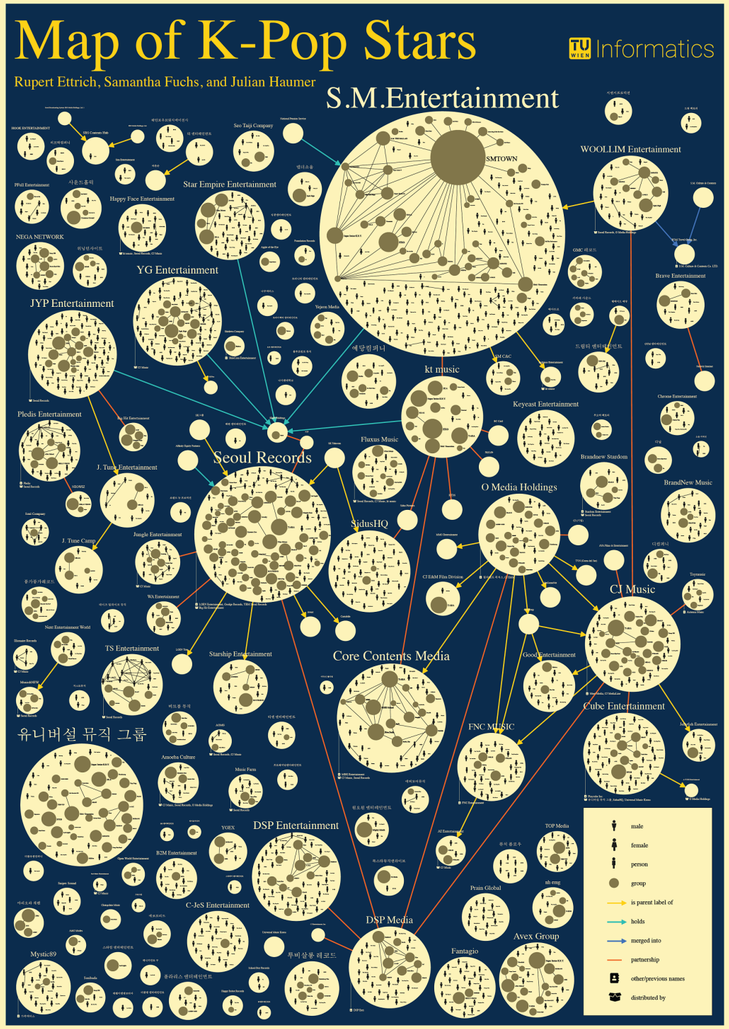


Philipp Christoph Hekeler,
Lucas Joos,
Merle Kammer,
Marco Piechotta,
Markus Schramm,
Kathrin Seßler,
Friederike Maite Siemers,
Andreas Tanner,
Felix Weckesser,
Henry Förster,
Axel Kuckuk
(University of Tübingen)

CREATIVE TOPICS

K-Pop

1st Place



Rupert Ettrich,
Julian Haumer,
Samantha Fuchs
(TU Wien)

LIVE CHALLENGE

LIVE CHALLENGE

Crossing Minimization in Upward Drawings

- input: directed graph and grid size
- output: straight-line upward embedding with vertices on grid
- must be a proper drawing
- objective: minimize the number of crossings

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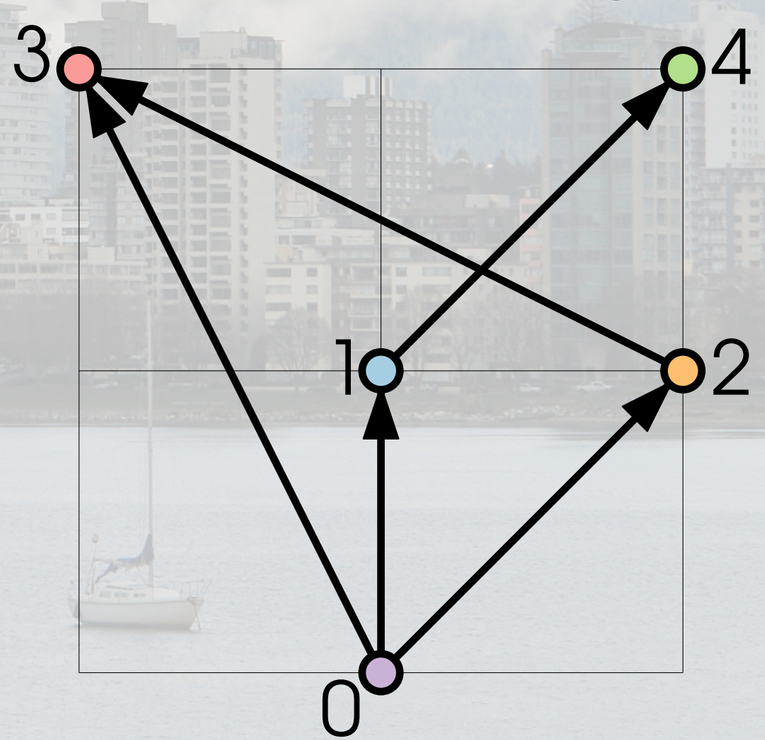

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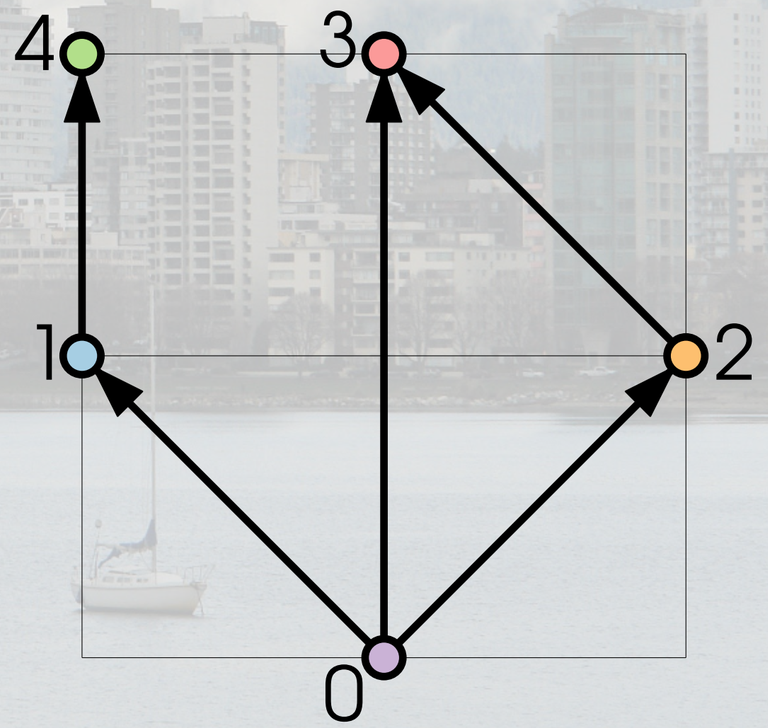


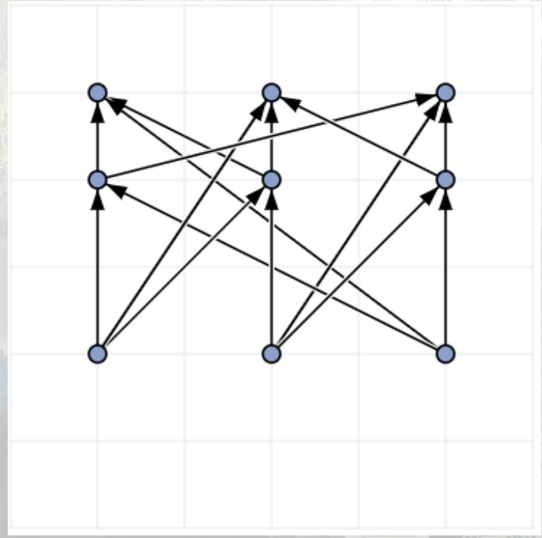
LIVE CHALLENGE

LIVE CHALLENGE

the graphs

LIVE CHALLENGE

the graphs



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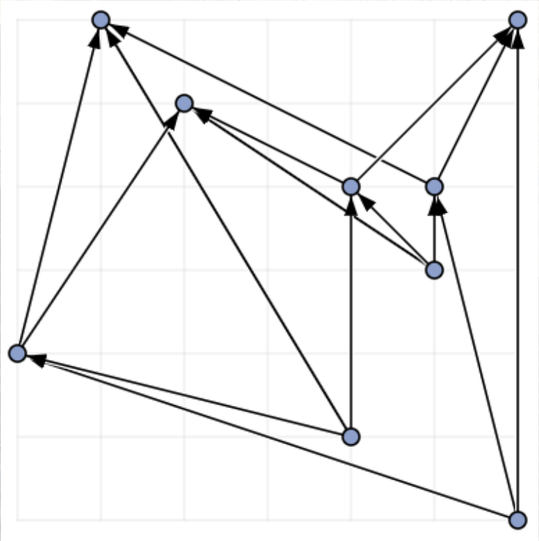
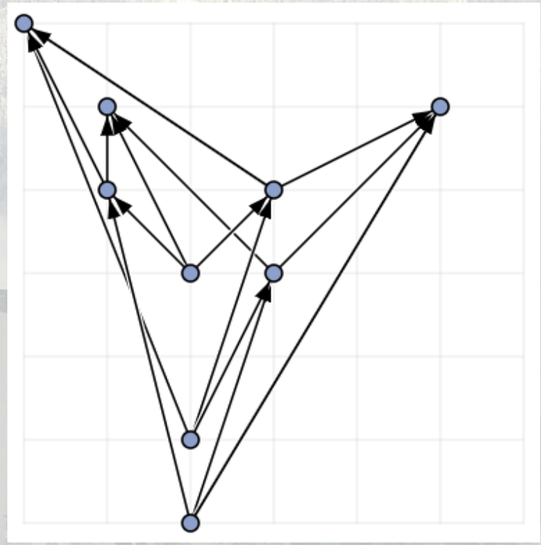


best manual

Good Luck

3 crossings



best automatic

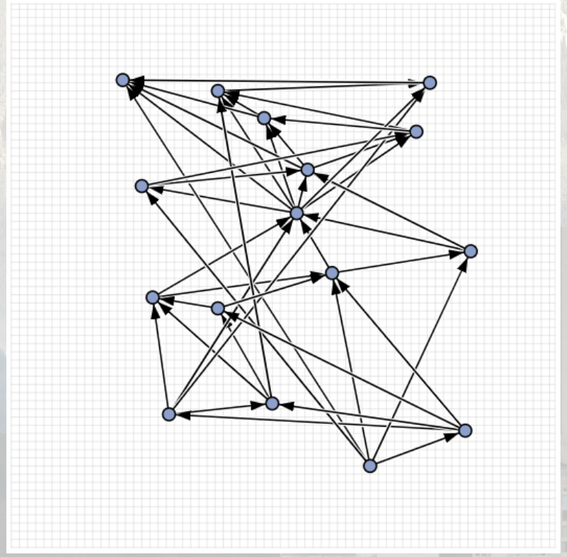
Team ex-UBC

3 crossings

graph **1**

LIVE CHALLENGE

the graphs



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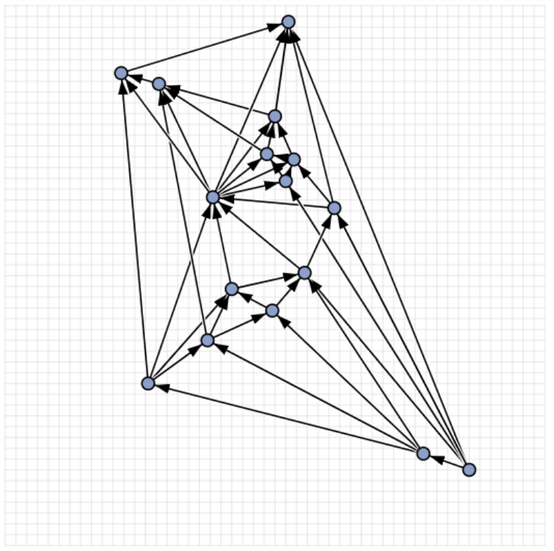
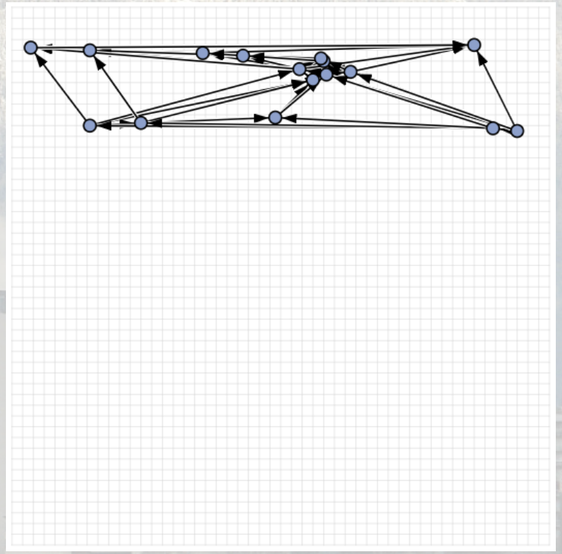


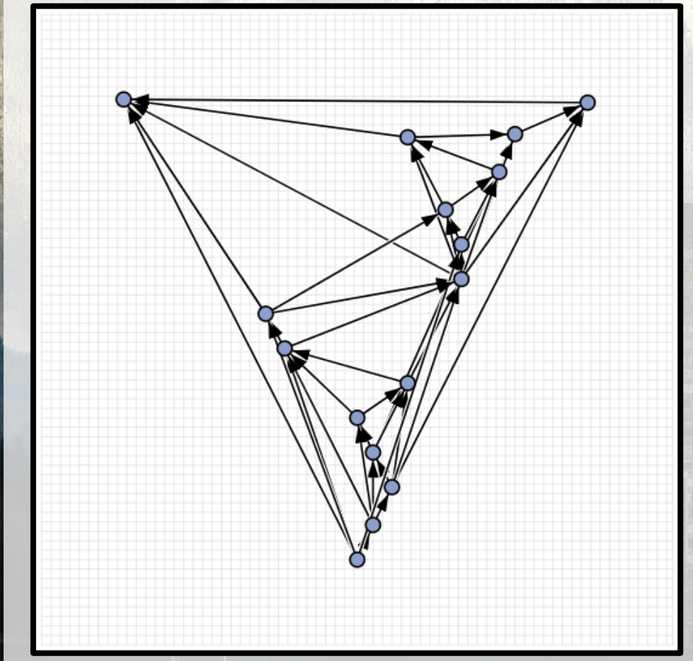
best manual
#OnlyGoodCrossings
9 crossings



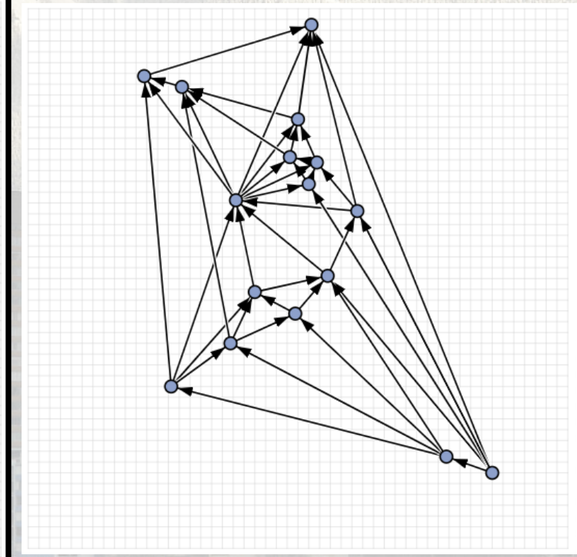
best automatic
JustForFun
9 crossings

graph **2**

LIVE CHALLENGE
the graphs



graph **2**



best manual
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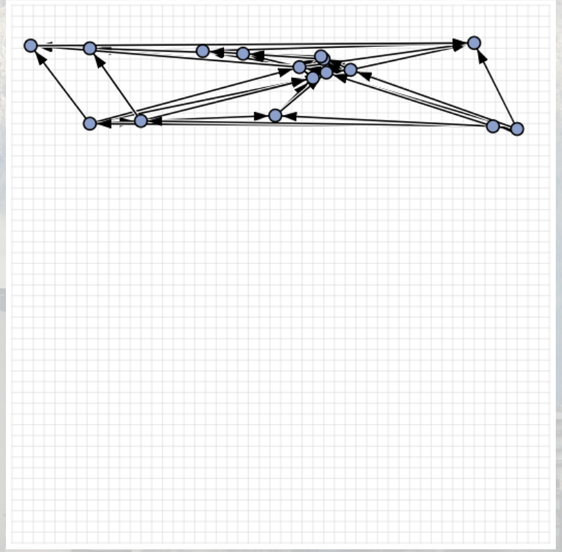
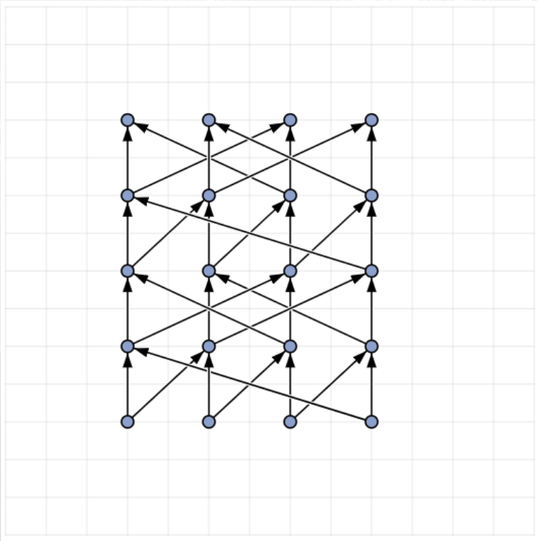


best automatic
JustForFun
9 crossings

LIVE CHALLENGE

the graphs



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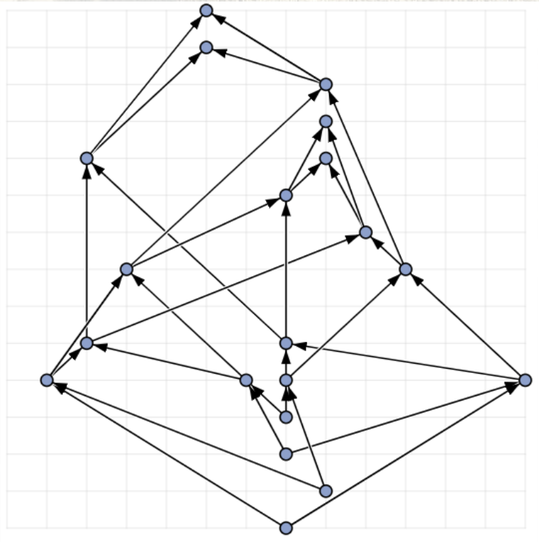
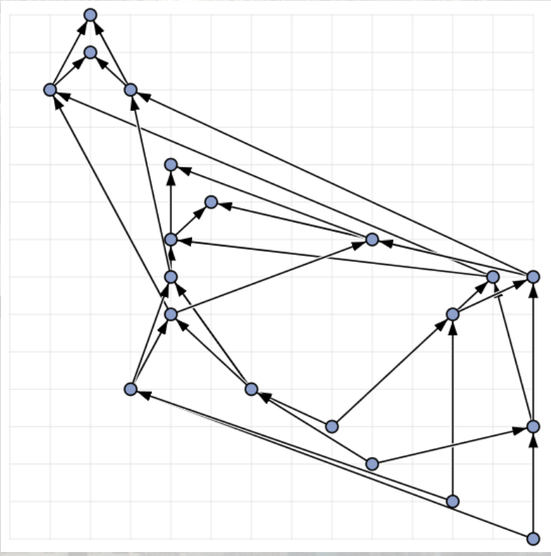


best manual

New keyboard, who dis?

8 crossings



best automatic

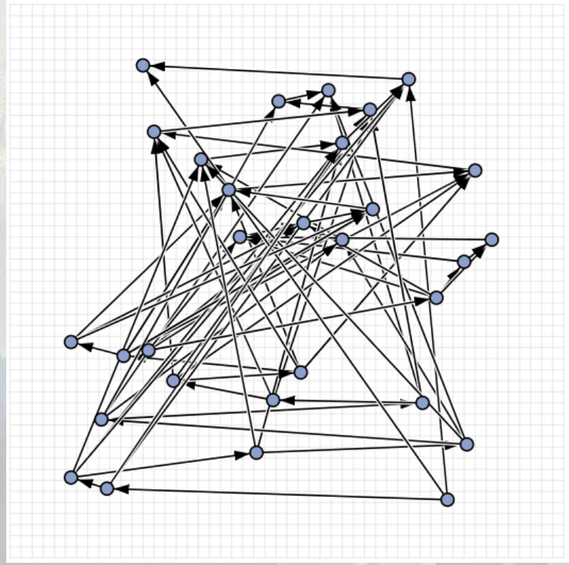
NothingChangedFromGD19

7 crossings

graph **3**

LIVE CHALLENGE

the graphs



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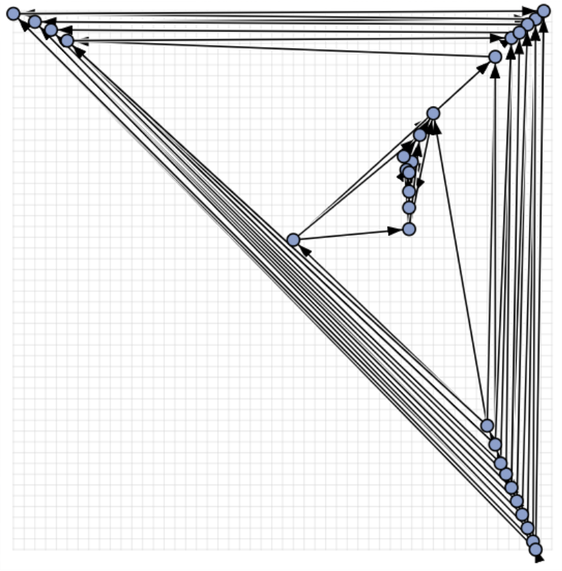
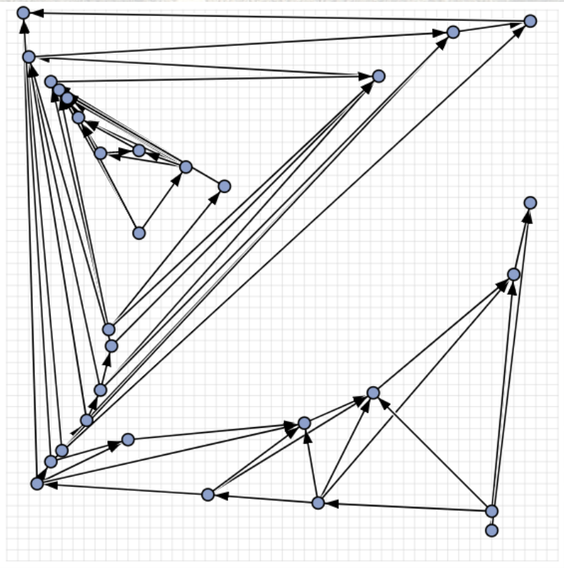


best manual

↑

0 crossings



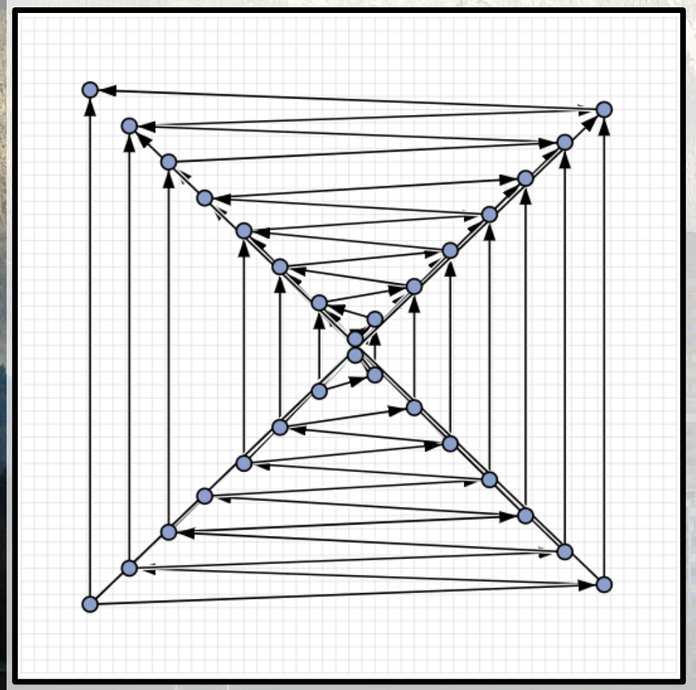
best automatic

NothingChangedFromGD19

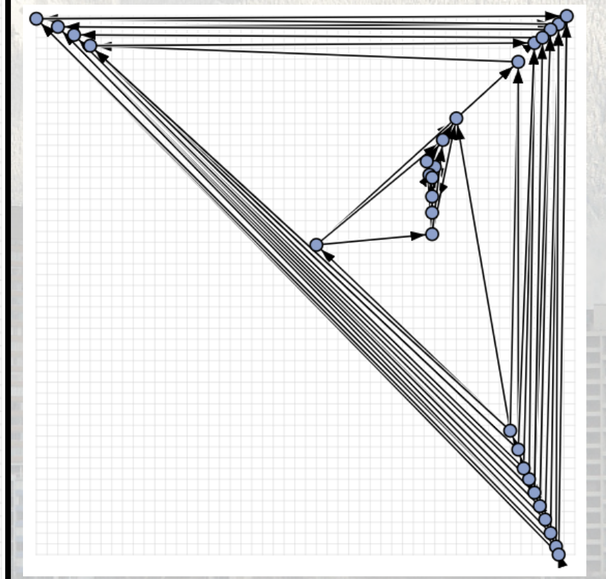
2 crossings

graph **4**

LIVE CHALLENGE
the graphs



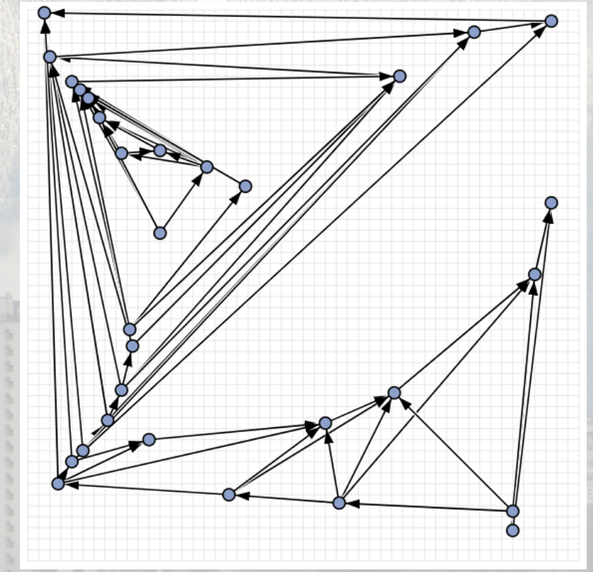
graph **4**



best manual

↑

0 crossings



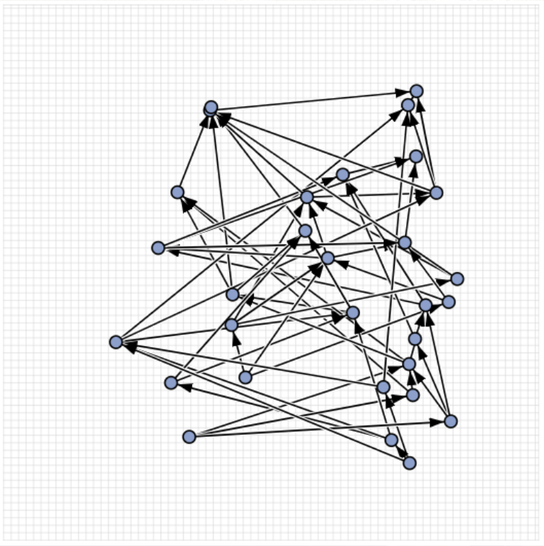
best automatic

NothingChangedFromGD19

2 crossings

LIVE CHALLENGE

the graphs



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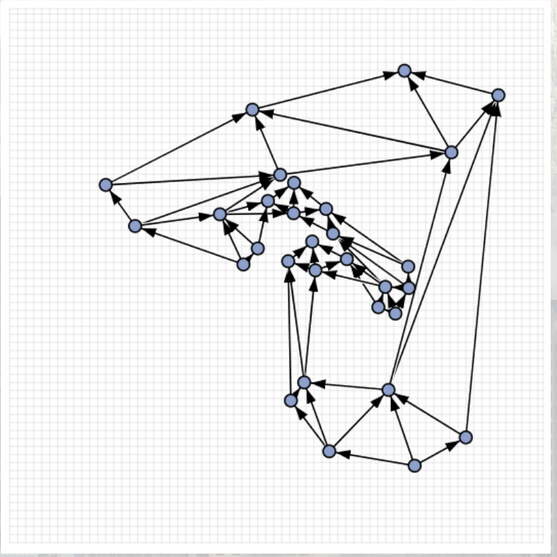
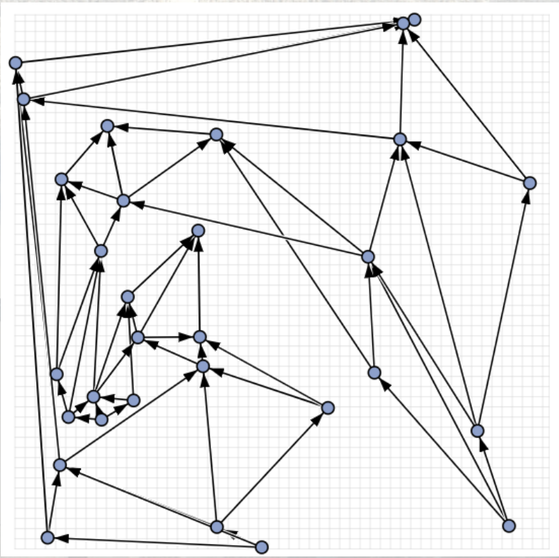


best manual

ElDeMi

2 crossings



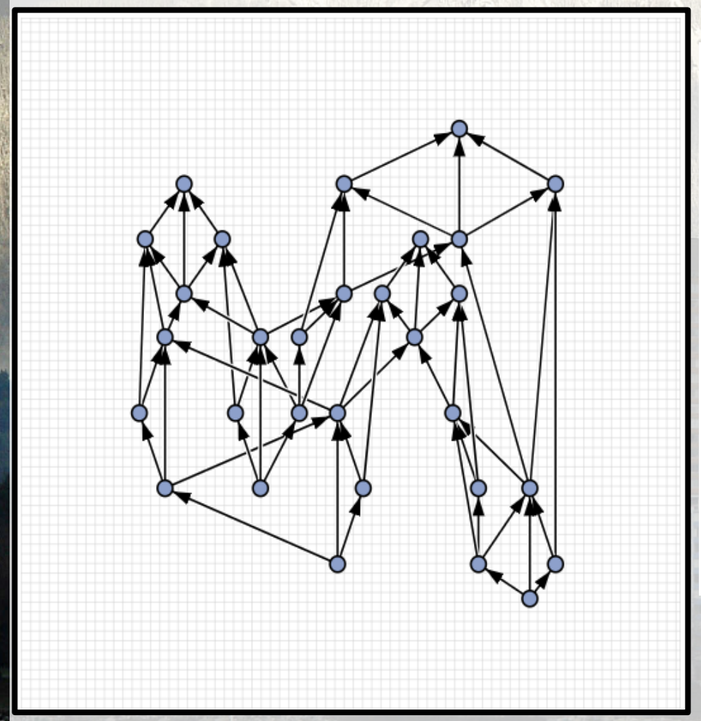
best automatic

NothingChangedFromGD19

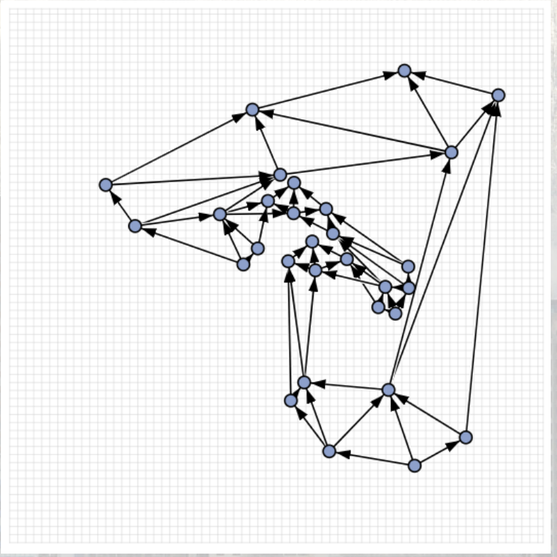
2 crossings

graph **5**

LIVE CHALLENGE
the graphs



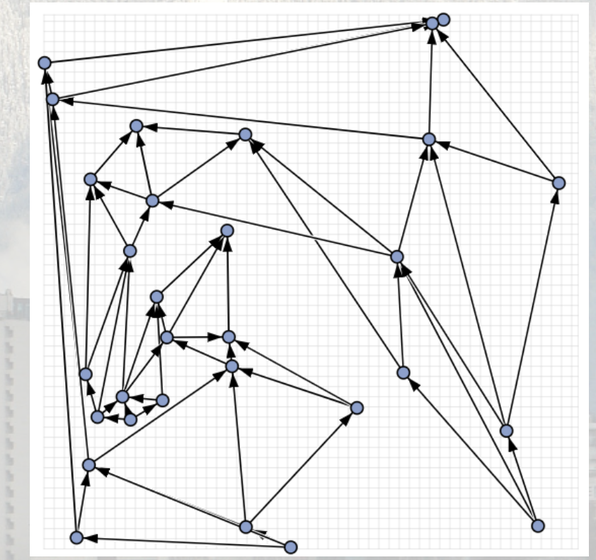
graph **5**



best manual

ElDeMi

2 crossings



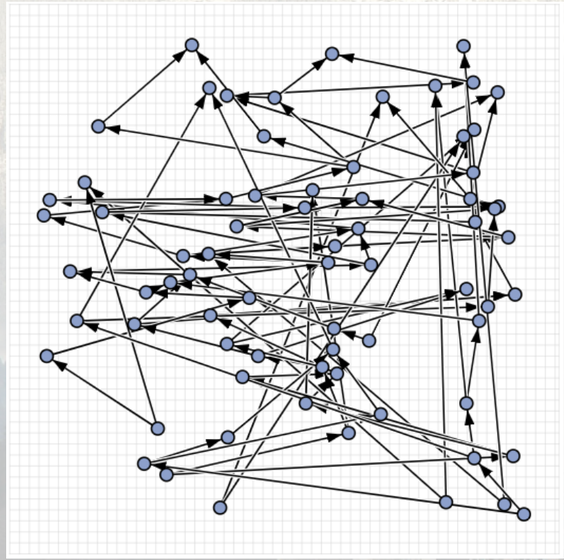
best automatic

NothingChangedFromGD19

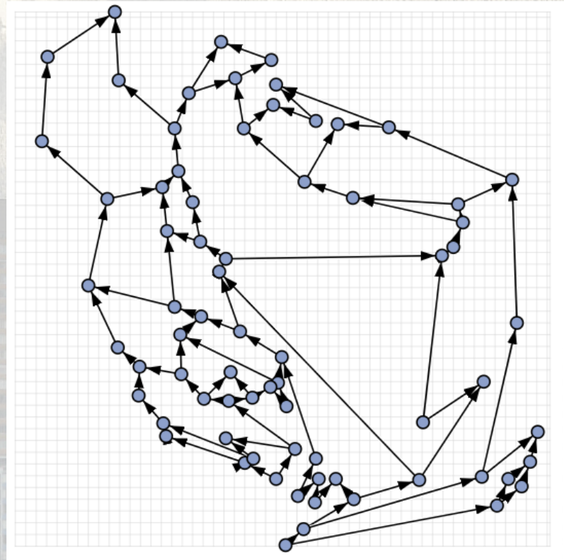
2 crossings

LIVE CHALLENGE

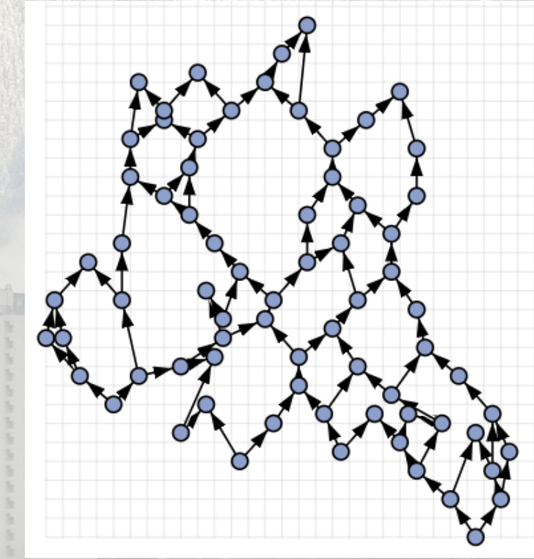
the graphs



input



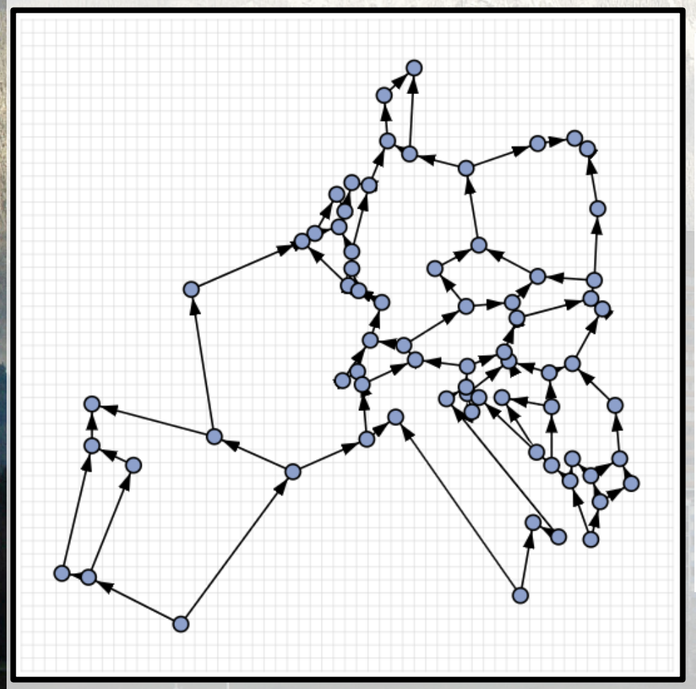
best manual
upwürz
0 crossings



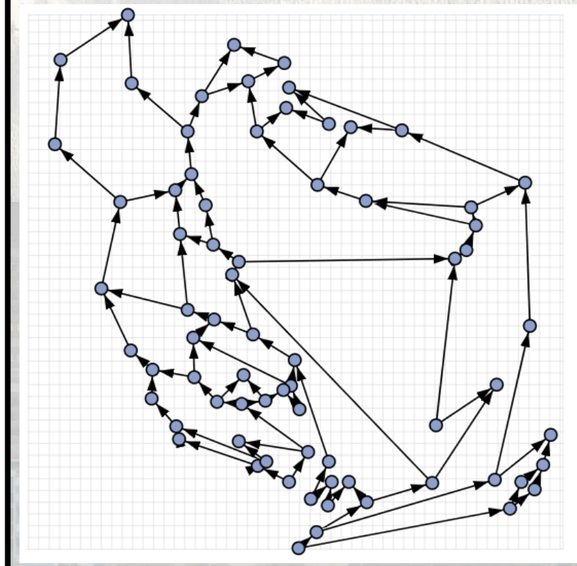
best automatic
wildcat
0 crossings

graph **6**

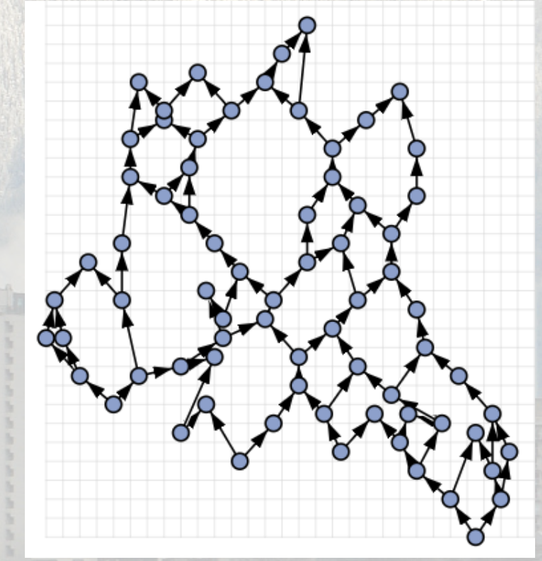
LIVE CHALLENGE
the graphs



graph **6**



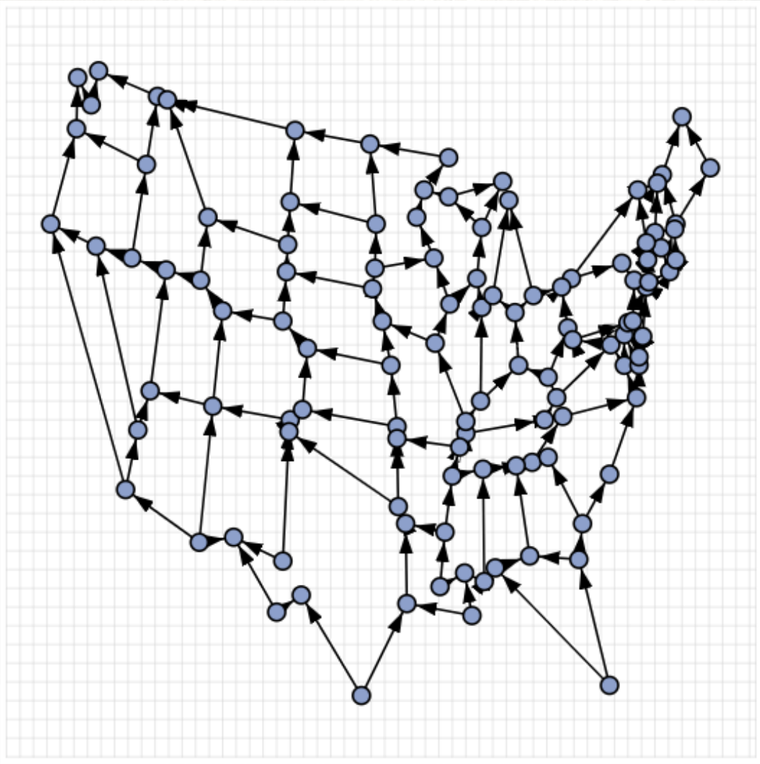
best manual
upwürz
0 crossings



best automatic
wildcat
0 crossings

LIVE CHALLENGE

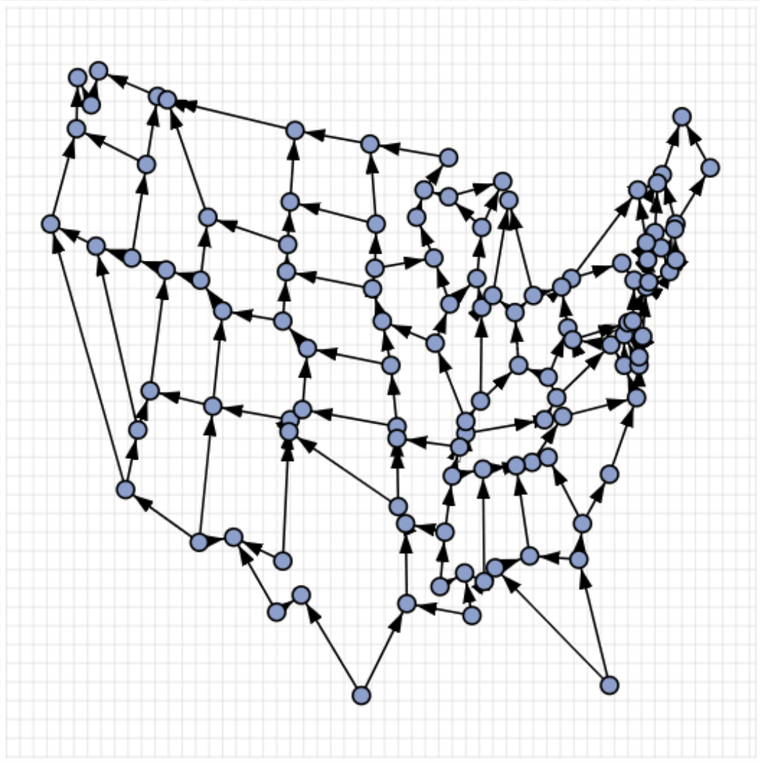
the graphs



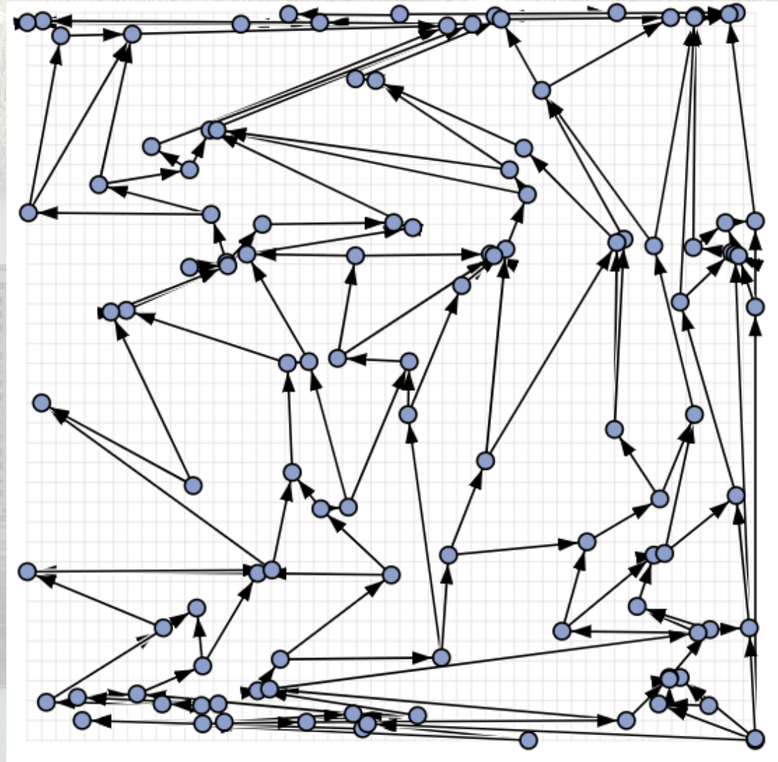
graph **7**

LIVE CHALLENGE

the graphs



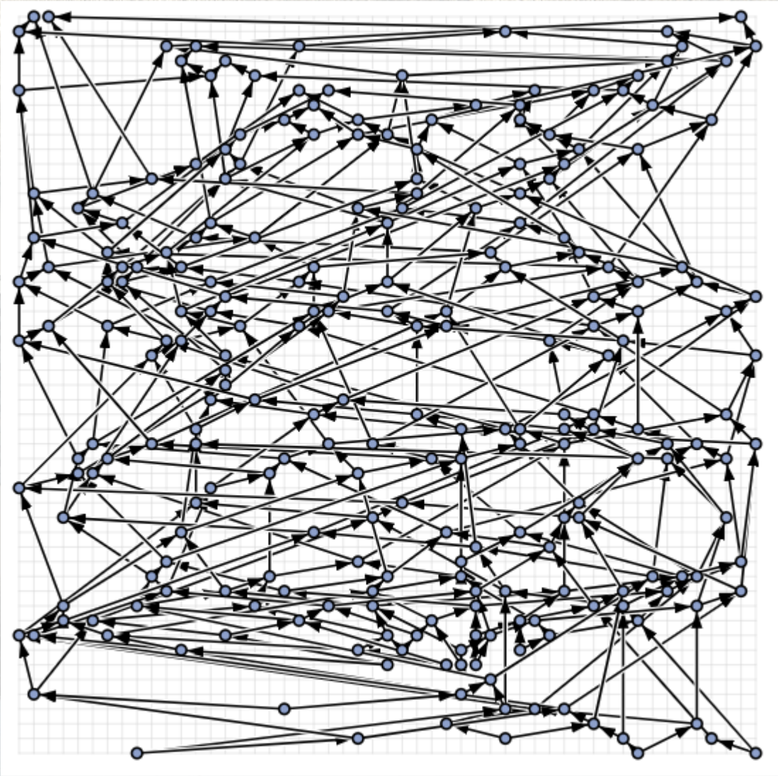
graph **7**



best automatic
SimpleIsBest
0 crossings

LIVE CHALLENGE

the graphs

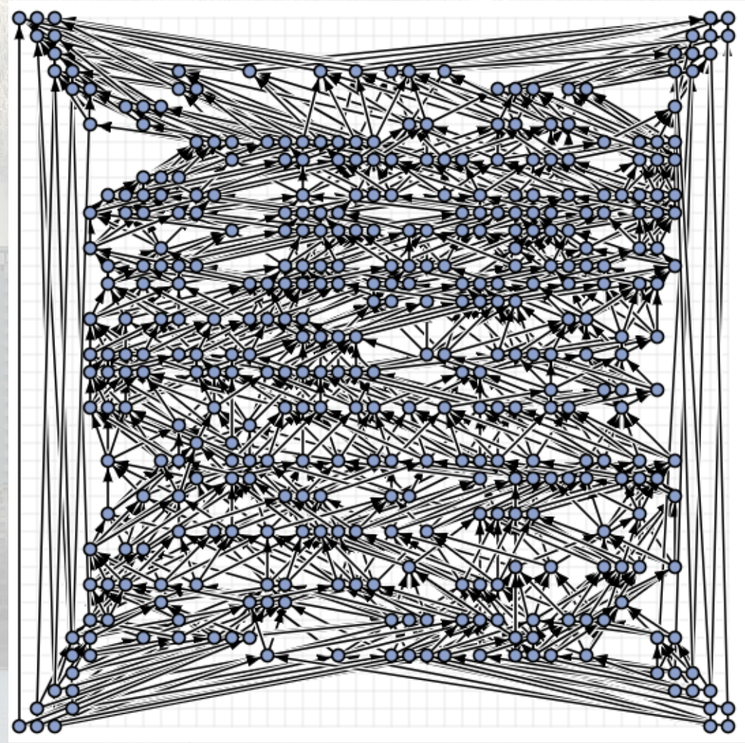


best automatic
SimpleIsBest
772 crossings

graph **8**

LIVE CHALLENGE

the graphs

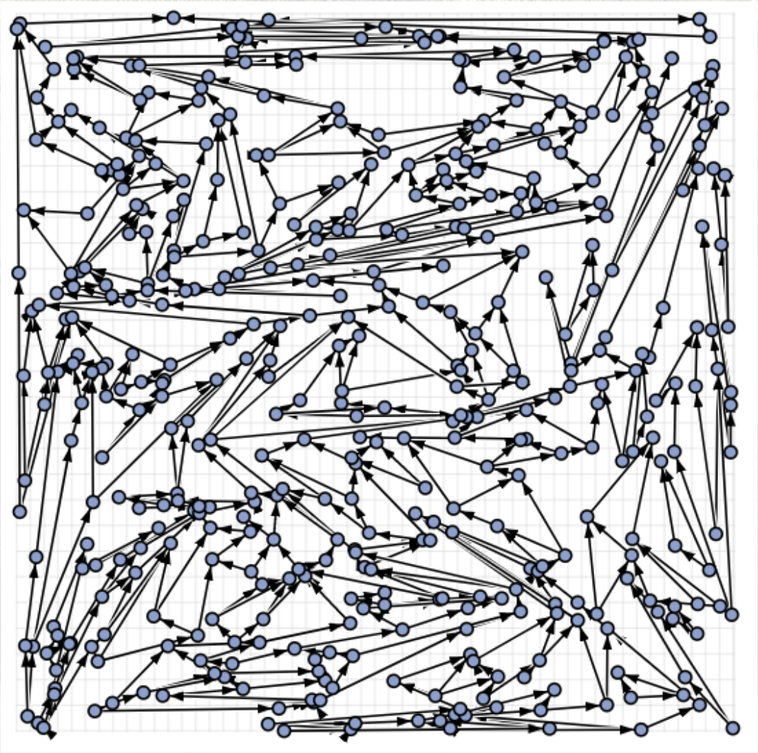


best automatic
NothingChangedFromGD19
5249 crossings

graph **9**

LIVE CHALLENGE

the graphs

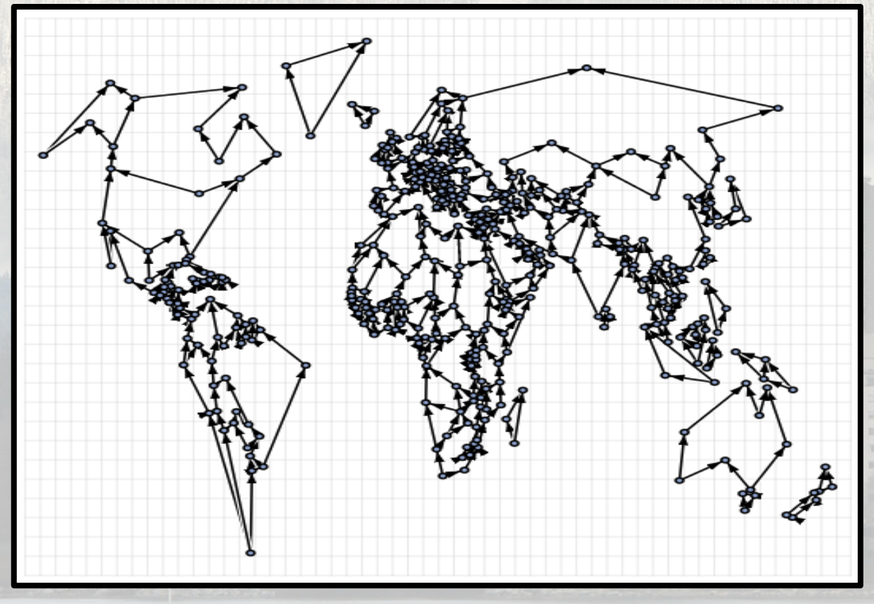


best automatic
NothingChangedFromGD19
7 crossings

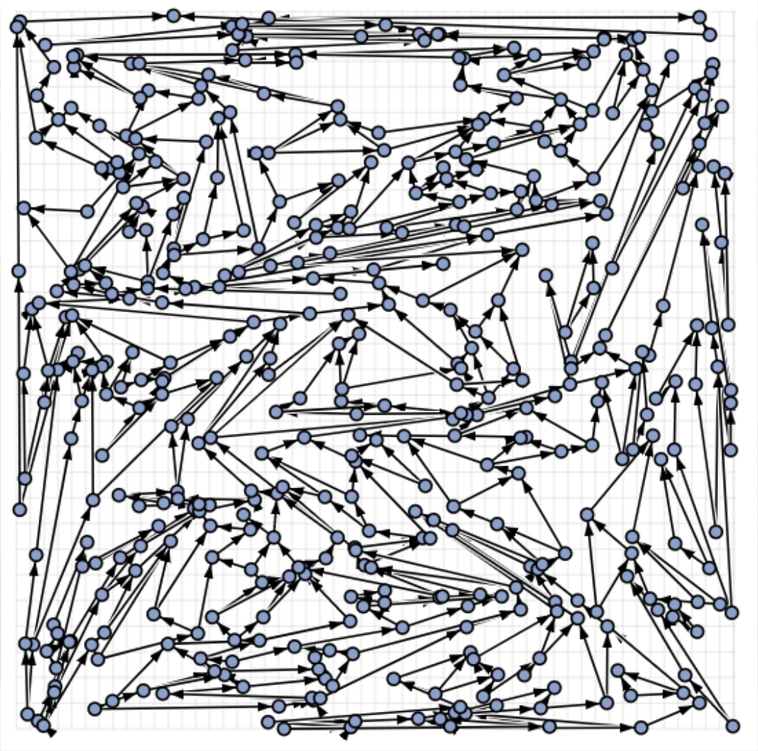
graph **10**

LIVE CHALLENGE

the graphs



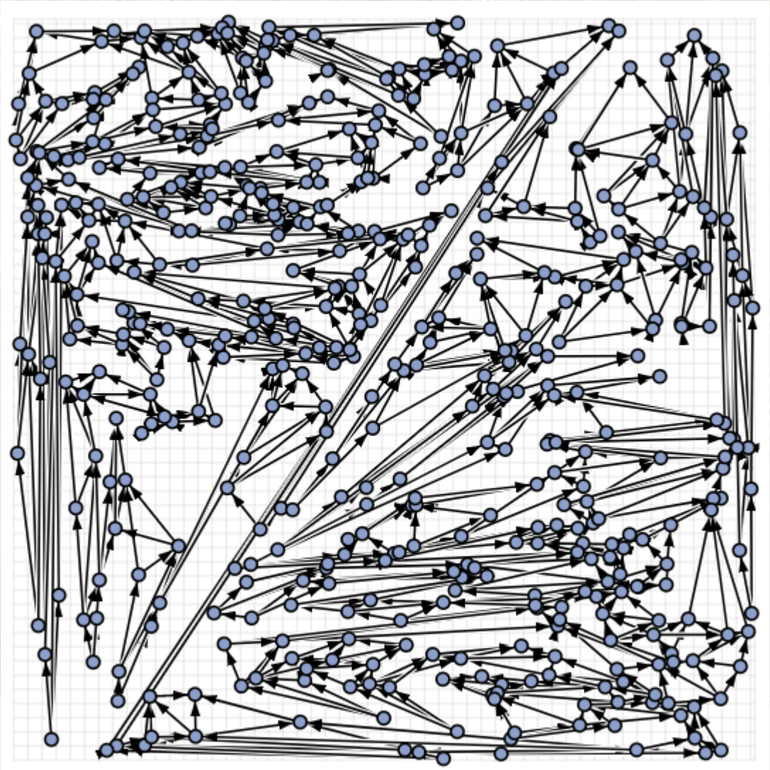
graph **10**



best automatic
NothingChangedFromGD19
7 crossings

LIVE CHALLENGE

the graphs

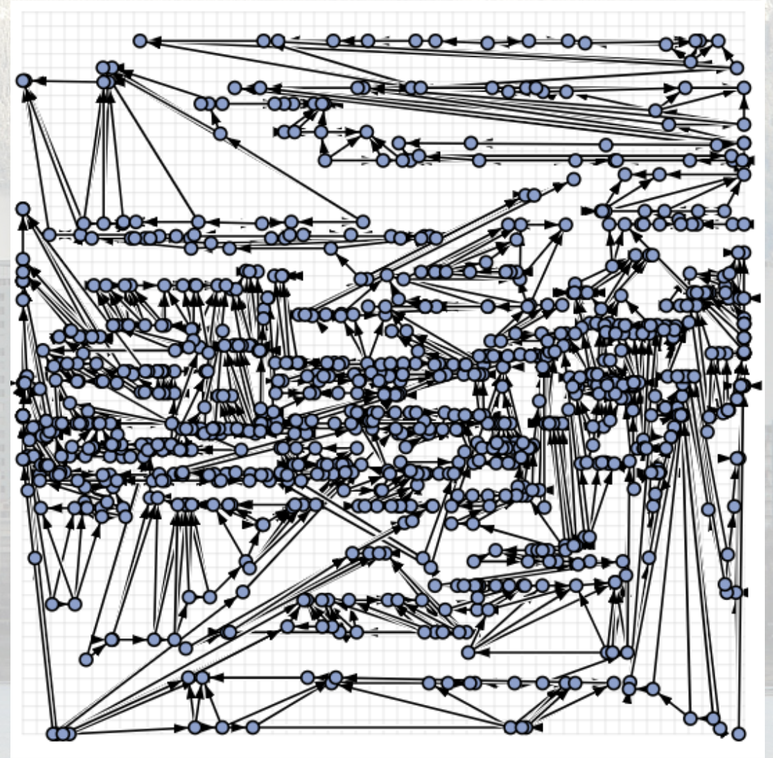


best automatic
NothingChangedFromGD19
89 crossings

graph **11**

LIVE CHALLENGE

the graphs

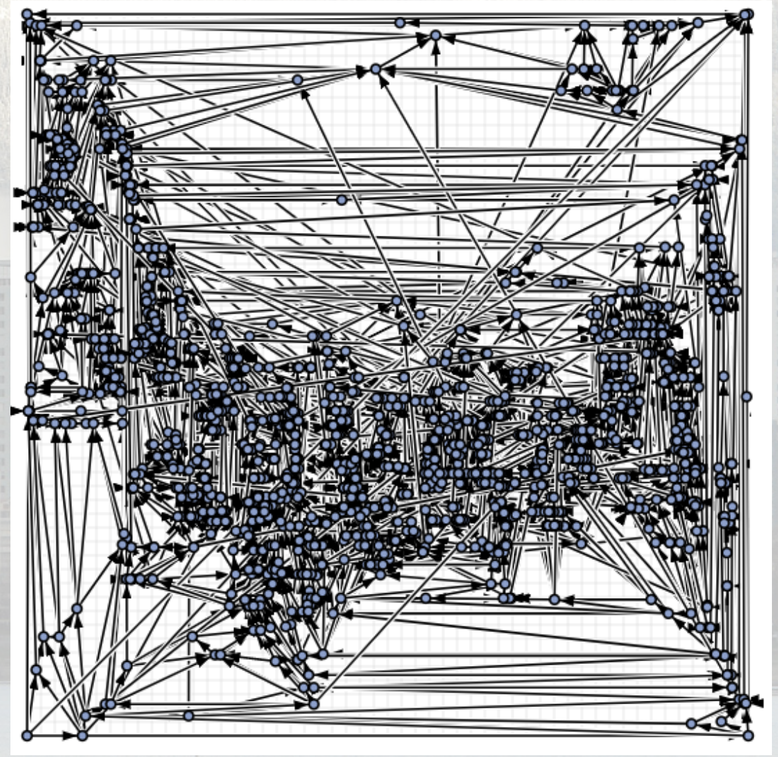


best automatic
SimpleIsBest
486 crossings

graph **12**

LIVE CHALLENGE

the graphs



best automatic
SimpleIsBest
26323 crossings

graph **13**

LIVE CHALLENGE

manual category

RESULTS

LIVE CHALLENGE

manual category

graph	1	2	3	4	5	6

Good luck
elyjan
ElDeMi
New keyboard, who dis?
#OnlyGoodCrossings
Barat OK
This time we brought 3 chargers!
MinCrossing
NowDutch
upwürz
Lakeside Inferno
↑
justforfun

LIVE CHALLENGE

manual category

graph	1	2	3	4	5	6
Good luck	3					
elyjan	3					
ElDeMi	4					
New keyboard, who dis?	3					
#OnlyGoodCrossings	3					
Barat OK	4					
This time we brought 3 chargers!	3					
MinCrossing	4					
NowDutch	4					
upwürz	3					
Lakeside Inferno	4					
↑	4					
justforfun	4					

LIVE CHALLENGE

manual category

graph	1	2	3	4	5	6
Good luck	3	9				
elyjan	3	9				
ElDeMi	4	9				
New keyboard, who dis?	3	13				
#OnlyGoodCrossings	3	9				
Barat OK	4	10				
This time we brought 3 chargers!	3	9				
MinCrossing	4	20				
NowDutch	4	11				
upwürz	3	10				
Lakeside Inferno	4	10				
↑	4	10				
justforfun	4	31				

LIVE CHALLENGE

manual category

graph	1	2	3	4	5	6
Good luck	3	9	9			
elyjan	3	9	12			
ElDeMi	4	9	9			
New keyboard, who dis?	3	13	8			
#OnlyGoodCrossings	3	9	9			
Barat OK	4	10	15			
This time we brought 3 chargers!	3	9	9			
MinCrossing	4	20	15			
NowDutch	4	11	9			
upwürz	3	10	8			
Lakeside Inferno	4	10	10			
↑	4	10	10			
justforfun	4	31	17			

LIVE CHALLENGE

manual category

graph	1	2	3	4	5	6
Good luck	3	9	9	8		
elyjan	3	9	12	9		
ElDeMi	4	9	9	8		
New keyboard, who dis?	3	13	8	8		
#OnlyGoodCrossings	3	9	9	7		
Barat OK	4	10	15	10		
This time we brought 3 chargers!	3	9	9	8		
MinCrossing	4	20	15	264		
NowDutch	4	11	9	8		
upwürz	3	10	8	0		
Lakeside Inferno	4	10	10	8		
↑	4	10	10	0		
justforfun	4	31	17	126		

LIVE CHALLENGE

manual category

graph	1	2	3	4	5	6
Good luck	3	9	9	8	4	
elyjan	3	9	12	9	4	
ElDeMi	4	9	9	8	2	
New keyboard, who dis?	3	13	8	8	7	
#OnlyGoodCrossings	3	9	9	7	4	
Barat OK	4	10	15	10	10	
This time we brought 3 chargers!	3	9	9	8	4	
MinCrossing	4	20	15	264	33	
NowDutch	4	11	9	8	4	
upwürz	3	10	8	0	4	
Lakeside Inferno	4	10	10	8	4	
↑	4	10	10	0	4	
justforfun	4	31	17	126	5	

LIVE CHALLENGE

manual category

graph	1	2	3	4	5	6
Good luck	3	9	9	8	4	0
elyjan	3	9	12	9	4	0
ElDeMi	4	9	9	8	2	12
New keyboard, who dis?	3	13	8	8	7	0
#OnlyGoodCrossings	3	9	9	7	4	6
Barat OK	4	10	15	10	10	18
This time we brought 3 chargers!	3	9	9	8	4	0
MinCrossing	4	20	15	264	33	
NowDutch	4	11	9	8	4	1
upwürz	3	10	8	0	4	0
Lakeside Inferno	4	10	10	8	4	6
↑	4	10	10	0	4	0
justforfun	4	31	17	126	5	13

LIVE CHALLENGE

manual category

graph	1	2	3	4	5	6	
Good luck	3	9	9	8	4	0	3.
elyjan	3	9	12	9	4	0	
ElDeMi	4	9	9	8	2	12	
New keyboard, who dis?	3	13	8	8	7	0	
#OnlyGoodCrossings	3	9	9	7	4	6	
Barat OK	4	10	15	10	10	18	
This time we brought 3 chargers!	3	9	9	8	4	0	3.
MinCrossing	4	20	15	264	33		
NowDutch	4	11	9	8	4	1	
upwürz	3	10	8	0	4	0	1.
Lakeside Inferno	4	10	10	8	4	6	
↑	4	10	10	0	4	0	2.
justforfun	4	31	17	126	5	13	

LIVE CHALLENGE

automatic category

gd20

RESULTS

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin													
wildcat													
NEKO#$\phi\omega\phi$													
Simple is best													
JustForFun													
Team ex-UBC													
graphX													
NothingChangedFromGD19													

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4												
wildcat	3												
NEKO#$\phi\omega\phi$	5												
Simple is best	3												
JustForFun	6												
Team ex-UBC	3												
graphX	5												
NothingChangedFromGD19	3												

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11											
wildcat	3	18											
NEKO#$\phi\omega\phi$	5	9											
Simple is best	3	9											
JustForFun	6	9											
Team ex-UBC	3	9											
graphX	5	9											
NothingChangedFromGD19	3	9											

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14										
wildcat	3	18	15										
NEKO#$\phi\omega\phi$	5	9	11										
Simple is best	3	9	8										
JustForFun	6	9	14										
Team ex-UBC	3	9	8										
graphX	5	9	10										
NothingChangedFromGD19	3	9	7										

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17									
wildcat	3	18	15	11									
NEKO#$\phi\omega\phi$	5	9	11	14									
Simple is best	3	9	8	7									
JustForFun	6	9	14	7									
Team ex-UBC	3	9	8	11									
graphX	5	9	10	8									
NothingChangedFromGD19	3	9	7	2									

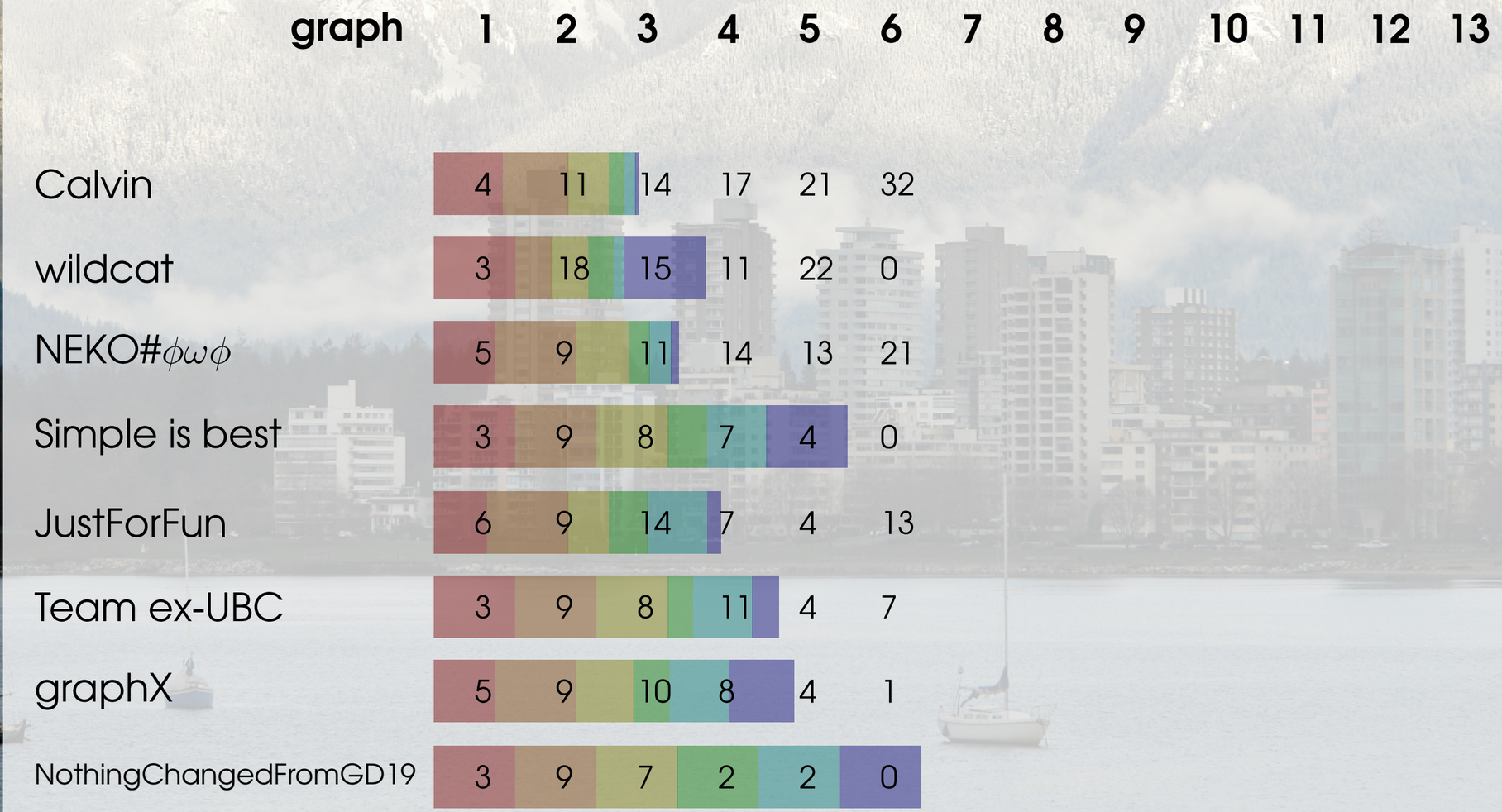
LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17	21								
wildcat	3	18	15	11	22								
NEKO#$\phi\omega\phi$	5	9	11	14	13								
Simple is best	3	9	8	7	4								
JustForFun	6	9	14	7	4								
Team ex-UBC	3	9	8	11	4								
graphX	5	9	10	8	4								
NothingChangedFromGD19	3	9	7	2	2								

LIVE CHALLENGE

automatic category



LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17	21	32	0						
wildcat	3	18	15	11	22	0	0						
NEKO#$\phi\omega\phi$	5	9	11	14	13	21	0						
Simple is best	3	9	8	7	4	0	0						
JustForFun	6	9	14	7	4	13	0						
Team ex-UBC	3	9	8	11	4	7	0						
graphX	5	9	10	8	4	1	0						
NothingChangedFromGD19	3	9	7	2	2	0	0						

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17	21	32	0						
wildcat	3	18	15	11	22	0	0	-					
NEKO#$\phi\omega\phi$	5	9	11	14	13	21	0	1.2k					
Simple is best	3	9	8	7	4	0	0	772					
JustForFun	6	9	14	7	4	13	0	-					
Team ex-UBC	3	9	8	11	4	7	0						
graphX	5	9	10	8	4	1	0	1.7k					
NothingChangedFromGD19	3	9	7	2	2	0	0	772					

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17	21	32	0						
wildcat	3	18	15	11	22	0	0	-	-				
NEKO#$\phi\omega\phi$	5	9	11	14	13	21	0	1.2k	9.9k				
Simple is best	3	9	8	7	4	0	0	772	5.6k				
JustForFun	6	9	14	7	4	13	0	-	41k				
Team ex-UBC	3	9	8	11	4	7	0		13k				
graphX	5	9	10	8	4	1	0	1.7k	13k				
NothingChangedFromGD19	3	9	7	2	2	0	0	772	5.2k				

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17	21	32	0						
wildcat	3	18	15	11	22	0	0	-	-				
NEKO#$\phi\omega\phi$	5	9	11	14	13	21	0	1.2k	9.9k	8.6k			
Simple is best	3	9	8	7	4	0	0	772	5.6k	31			
JustForFun	6	9	14	7	4	13	0	-	41k	14k			
Team ex-UBC	3	9	8	11	4	7	0		13k	1.9k			
graphX	5	9	10	8	4	1	0	1.7k	13k	60			
NothingChangedFromGD19	3	9	7	2	2	0	0	772	5.2k	7			

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17	21	32	0						
wildcat	3	18	15	11	22	0	0	-	-				
NEKO#$\phi\omega\phi$	5	9	11	14	13	21	0	1.2k	9.9k	8.6k	21k		
Simple is best	3	9	8	7	4	0	0	772	5.6k	31	90		
JustForFun	6	9	14	7	4	13	0	-	41k	14k	74k		
Team ex-UBC	3	9	8	11	4	7	0		13k	1.9k	3.8k		
graphX	5	9	10	8	4	1	0	1.7k	13k	60	224		
NothingChangedFromGD19	3	9	7	2	2	0	0	772	5.2k	7	89		

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17	21	32	0						
wildcat	3	18	15	11	22	0	0	-	-				
NEKO#$\phi\omega\phi$	5	9	11	14	13	21	0	1.2k	9.9k	8.6k	21k	154k	
Simple is best	3	9	8	7	4	0	0	772	5.6k	31	90	486	
JustForFun	6	9	14	7	4	13	0	-	41k	14k	74k	316k	
Team ex-UBC	3	9	8	11	4	7	0		13k	1.9k	3.8k	84k	
graphX	5	9	10	8	4	1	0	1.7k	13k	60	224	3.1k	
NothingChangedFromGD19	3	9	7	2	2	0	0	772	5.2k	7	89	504	

LIVE CHALLENGE

automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13
Calvin	4	11	14	17	21	32	0						
wildcat	3	18	15	11	22	0	0	-	-				
NEKO#$\phi\omega\phi$	5	9	11	14	13	21	0	1.2k	9.9k	8.6k	21k	154k	691k
Simple is best	3	9	8	7	4	0	0	772	5.6k	31	90	486	26k
JustForFun	6	9	14	7	4	13	0	-	41k	14k	74k	316k	1.4M
Team ex-UBC	3	9	8	11	4	7	0		13k	1.9k	3.8k	84k	278k
graphX	5	9	10	8	4	1	0	1.7k	13k	60	224	3.1k	1M
NothingChangedFromGD19	3	9	7	2	2	0	0	772	5.2k	7	89	504	34k

LIVE CHALLENGE
automatic category

graph	1	2	3	4	5	6	7	8	9	10	11	12	13	
Calvin	4	11	14	17	21	32	0							
wildcat	3	18	15	11	22	0	0	-	-					
NEKO#$\phi\omega\phi$	5	9	11	14	13	21	0	1.2k	9.9k	8.6k	21k	154k	691k	
Simple is best	3	9	8	7	4	0	0	772	5.6k	31	90	486	26k	**2.**
JustForFun	6	9	14	7	4	13	0	-	41k	14k	74k	316k	1.4M	
Team ex-UBC	3	9	8	11	4	7	0		13k	1.9k	3.8k	84k	278k	
graphX	5	9	10	8	4	1	0	1.7k	13k	60	224	3.1k	1M	**3.**
NothingChangedFromGD19	3	9	7	2	2	0	0	772	5.2k	7	89	504	34k	**1.**

GRAPH DRAWING CONTEST

2020 announcement

gd 20

Thank you, Ignaz!

Member of Contest Committee 2013 – 2020

GRAPH DRAWING CONTEST

2020 announcement

gd20

Announcement of Tasks

GRAPH DRAWING CONTEST

2020 creative topic #1

GRAPH DRAWING CONTEST

2020 creative topic #1

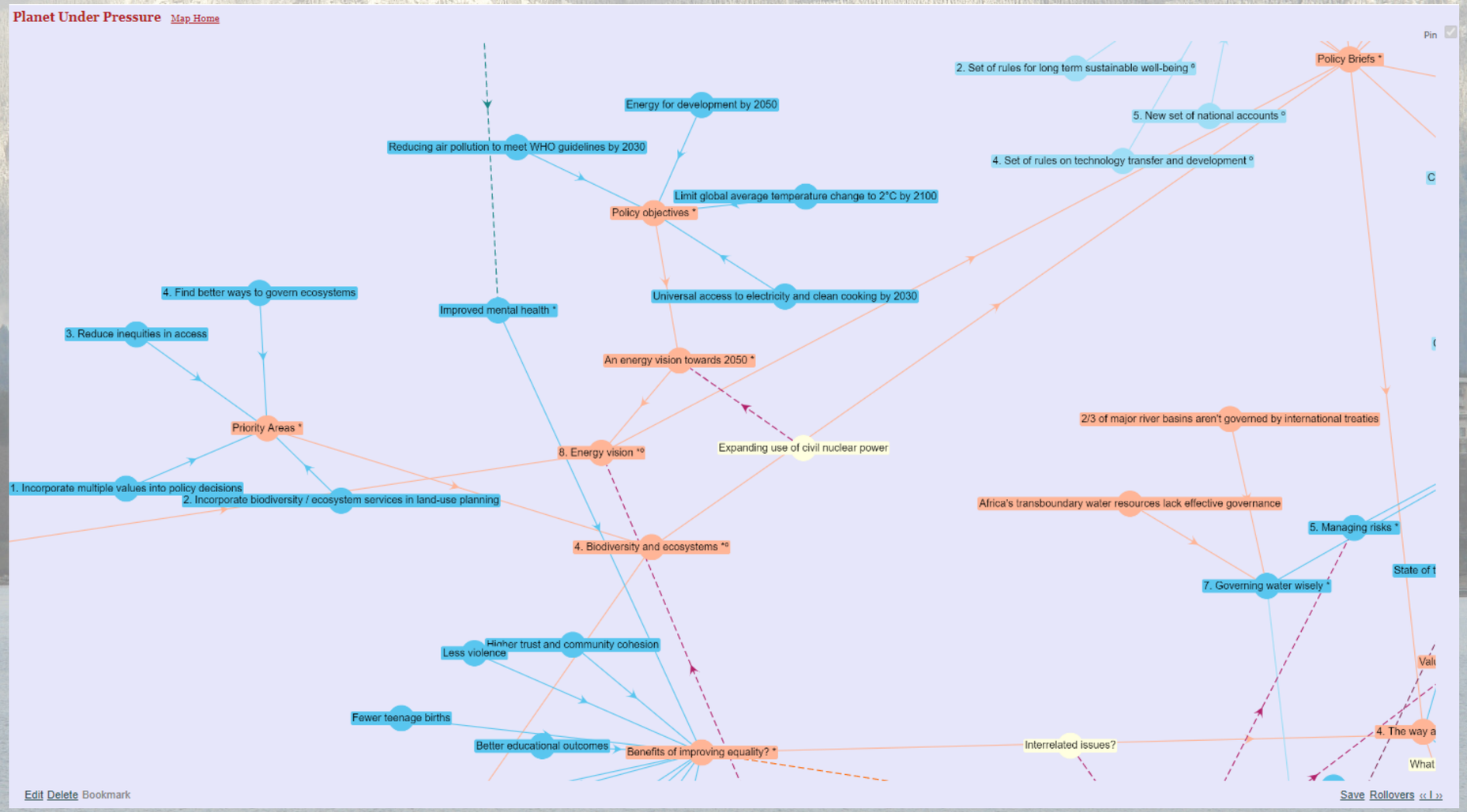
Argumentation Map

Nodes are issues, arguments, facts

Edges specify relationships (like support/attack) among them

GRAPH DRAWING CONTEST

2020 creative topic #1



GRAPH DRAWING CONTEST

2020 creative topic #2

GRAPH DRAWING CONTEST

2020 creative topic #2

Movie Remakes

Nodes are directors

And edge (u, v) represents that director u remade a movie of director v.

GRAPH DRAWING CONTEST

2020 creative topic #2

gd 20

Movie Remakes

Remakes	Original version
13 (2010) dir. Géla Babluani	*13 Tzameti* (2005) dir. Géla Babluani
The 13th Letter (1951) dir. Otto Preminger	*Le Corbeau* (1943) dir. Henri-Georges Clouzot
101 Dalmatians (1996) dir. Stephen Herek	*One Hundred and One Dalmatians* (1961) dir. Clyde Geronimi Based on the novel *The Hundred and One Dalmatians* by Dodie Smith
2001 Maniacs (2005) dir. Tim Sullivan	*Two Thousand Maniacs!* (1964) dir. Herschell Gordon Lewis
Tokyo Godfathers (2003) dir. Satoshi Kon *3 Godfathers* (1948) dir. John Ford *Three Godfathers* (1936) dir. Richard Boleslawski *Hell's Heroes* (1930) dir. William Wyler *Action* (1921) dir. John Ford *Marked Men* (1919) dir. John Ford	*The Three Godfathers* (1916) dir. Edward LeSaint Based on the novel *The Three Godfathers* by Peter B. Kyne
3 Idiotas (2017) dir. Carlos Bolado	*3 Idiots* (2009) dir. Rajkumar Hirani
3:10 to Yuma (2007) dir. James Mangold	*3:10 to Yuma* (1957) dir. Delmer Daves Based on the short story by Elmore Leonard
Nineteen Eighty-Four (1984) dir. Michael Radford *1984* (1956) dir. Michael Anderson *Nineteen Eighty-Four* (1954) dir. Rudolph Cartier	*1984* (1953) dir. Paul Nickell Based on the novel by George Orwell

GRAPH DRAWING CONTEST

2020 live challenge

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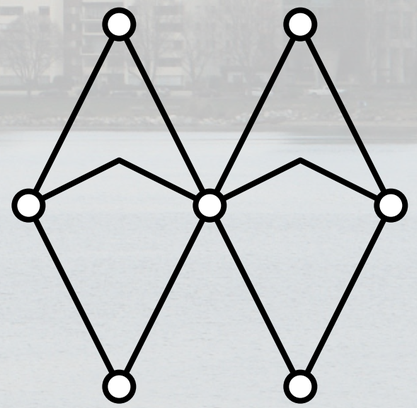
2020 live challenge

Planar polyline edge-length ratio

input: arbitrary planar graph, width w, height h

output: plane polyline drawing with integer vertex and bend coordinates on the $w \times h$ grid

objective: maximize ratio between longest and shortest edge