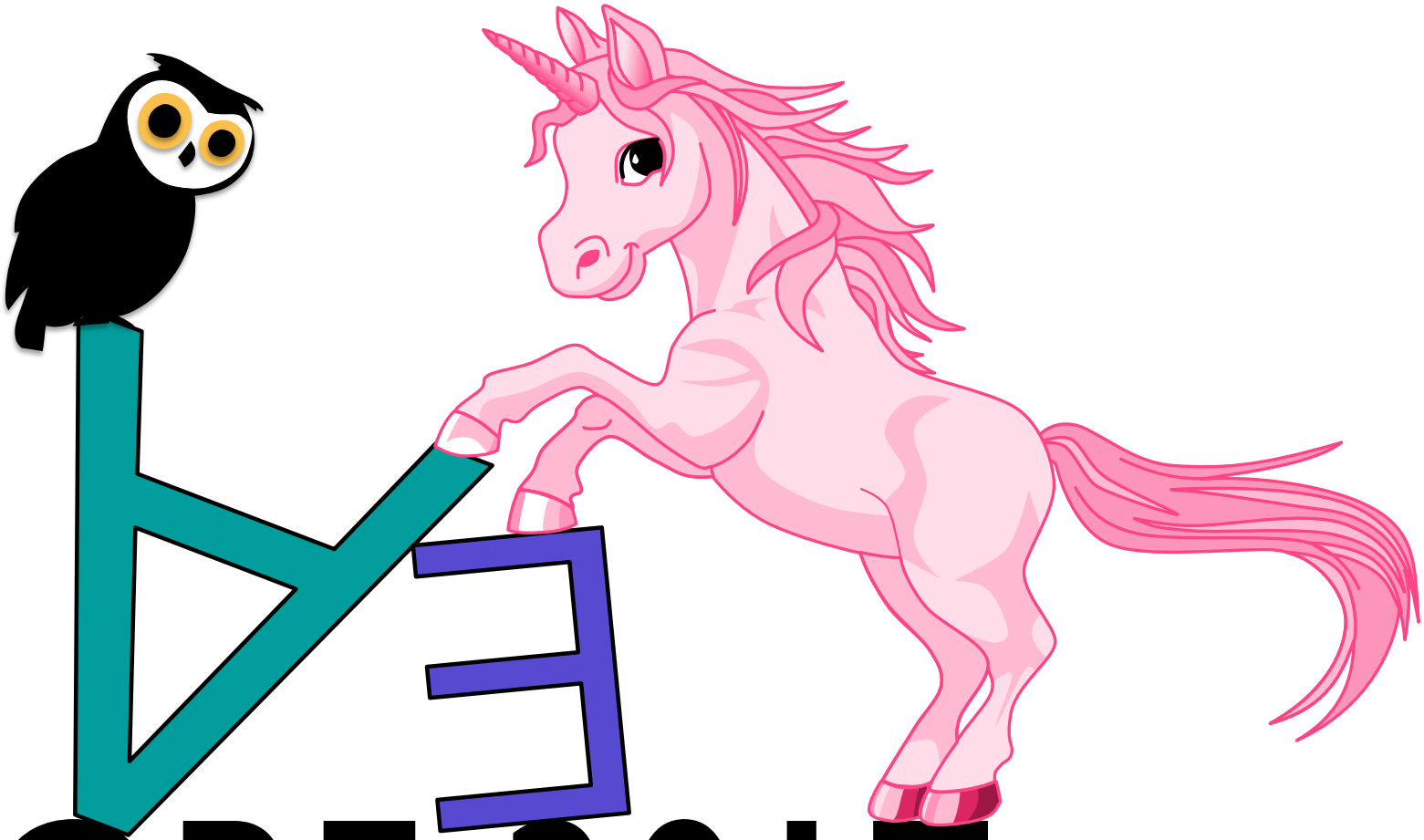


ORE 2015

OWL Reasoner Evaluation

Sponsored by

DBOnto B2i Healthcare

Business Meeting


WARNING!

ORE is 3 (or 4)

Year	2012	2013	2014	2015	
Papers	14	18	11	11	5 system/6 5 evaluation or Benchmark
Systems	4	14	11	13	14 if we include OWL API variants
User Onts	N/A	7	7	13	
Offline?	Yes	Yes	No	Sort of	
Live?	No	Yes	Yes	Yes	
Colo	IJCAR	DL	DL	DL	
Length	Half-day	Full	Full	Full	

Organization

- Part of the W3C OWLED Community Group
  - Permanent, neutral infrastructure
  - High visibility pages
    - For the World and for the W3C
- Moving to a split competition
  - DL Colo
    - Experimenter and reasoner developer workshop
    - Big corpus based live competition during DL
  - OWLED Colo
    - User and ontology developer track
    - User submitted ontology offline competition
    - Live “check reasoner error” competition during OWLED

OWLED 2015

- CFP coming soon!
- Please consider submitting and attending!
  - Coloed with ISWC in the US in Pennsylvania
    - Near my hometown! Native guide!
  - Just in ORE we made a great user/reasoner connection that will give PAGOdA an excellent application experiment
- Watch:
  - https://www.w3.org/community/owled/

Outside the Competition

- Permanent infrastructure
  - Moving there! Datasets available, at least
  - Fire up a competition anytime, anywhere
    - E.g., for an experiment
    - E.g., for a competition run (e.g., at DL *and* at OWLED)
    - E.g., for a new dataset
  - Perhaps continually running?!
- Reasoner/tool/experiment catalog

New Tracks

- Next year
  - Query answering/ODBA for sure
    - Bernardo got us 85% of the way, but we didn't make it in the end (sorry)
  - Better correctness
  - An Application Benchmark (maybe)
- New stuff
  - Mobile?
  - Nonstandard services?
- Competitors essential!

2015 Competition!!

Experience the thrill of victory….

…and the agony of defeat!

The Categories

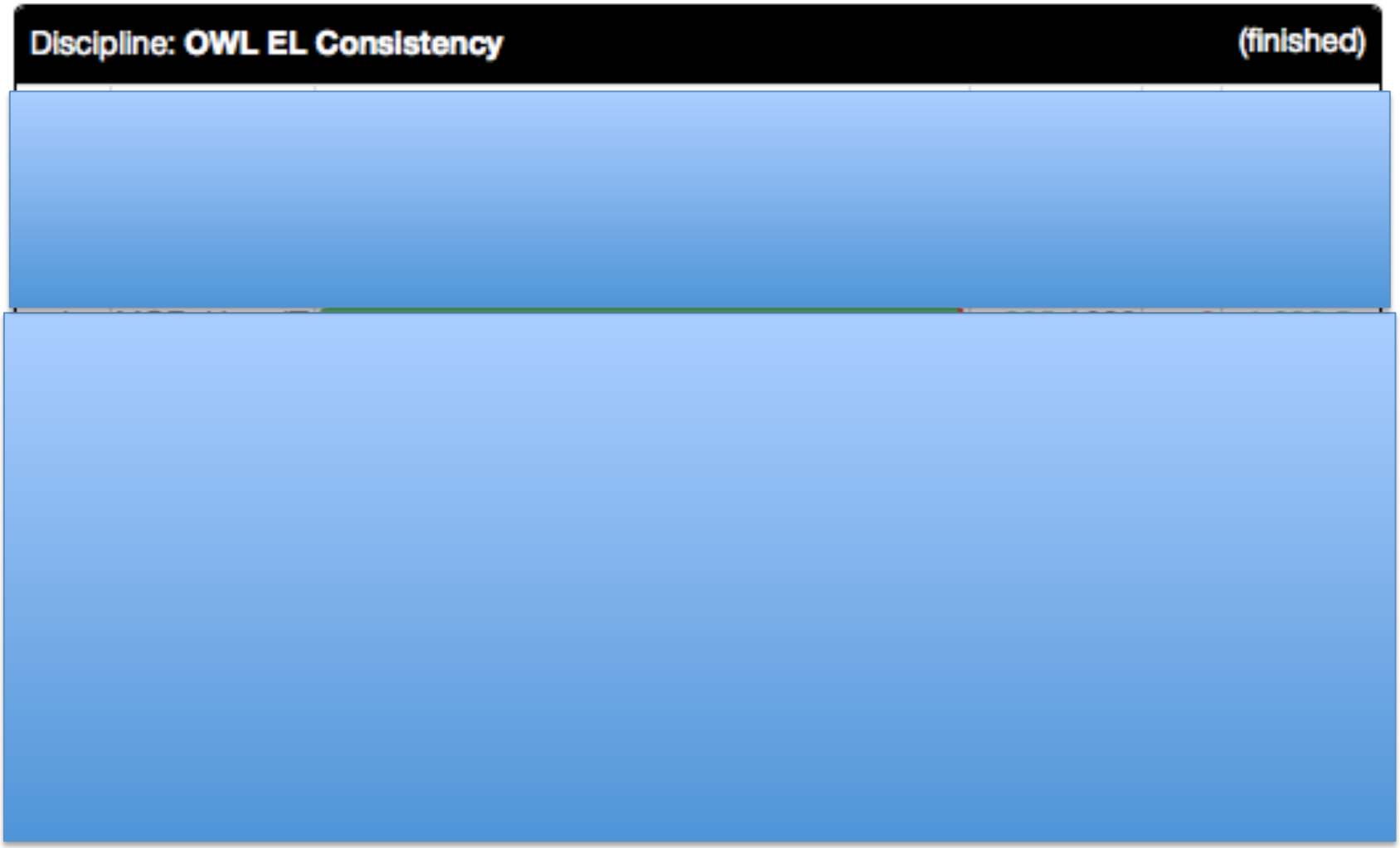
Task	Language	Competitors	Problems
Consistency	EL	13	298
	DL	10	306
Realization	EL	13	264
	DL	10	109
Classification	EL	13	306
	DL	10	298

The Competitors

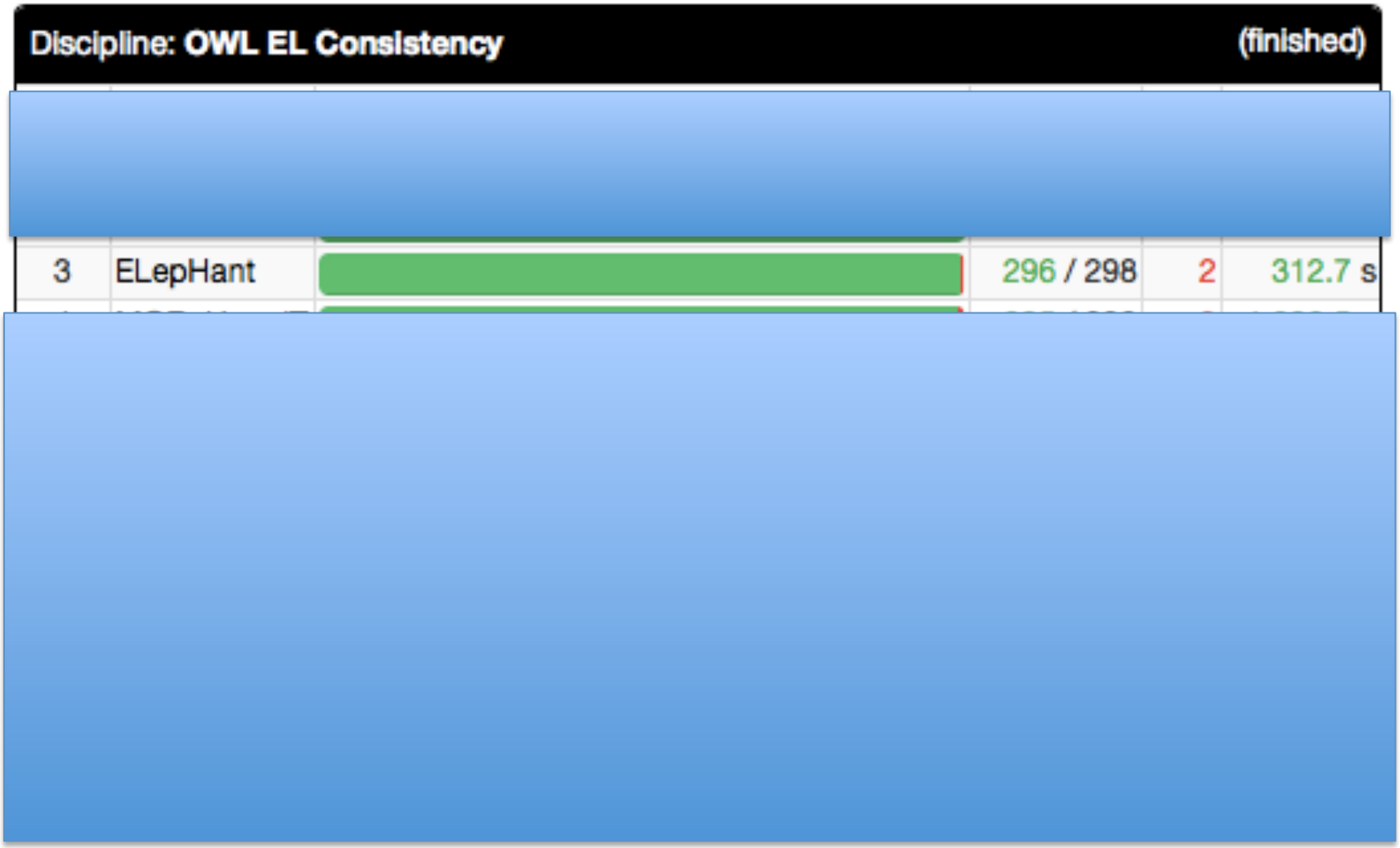
Chainsaw	Konclude
ELepHant	MORe
ELK	TrOWL
FaCT++	Newcomers!
HermiT (OWL API 3 & 4)	PAGOdA
jcel	Pellet
Jfact	Racer

Big shout out to Ignazio Palmisano: Jfact author, OWL API maintainer, porter of HermiT and Pellet to OWL API 4

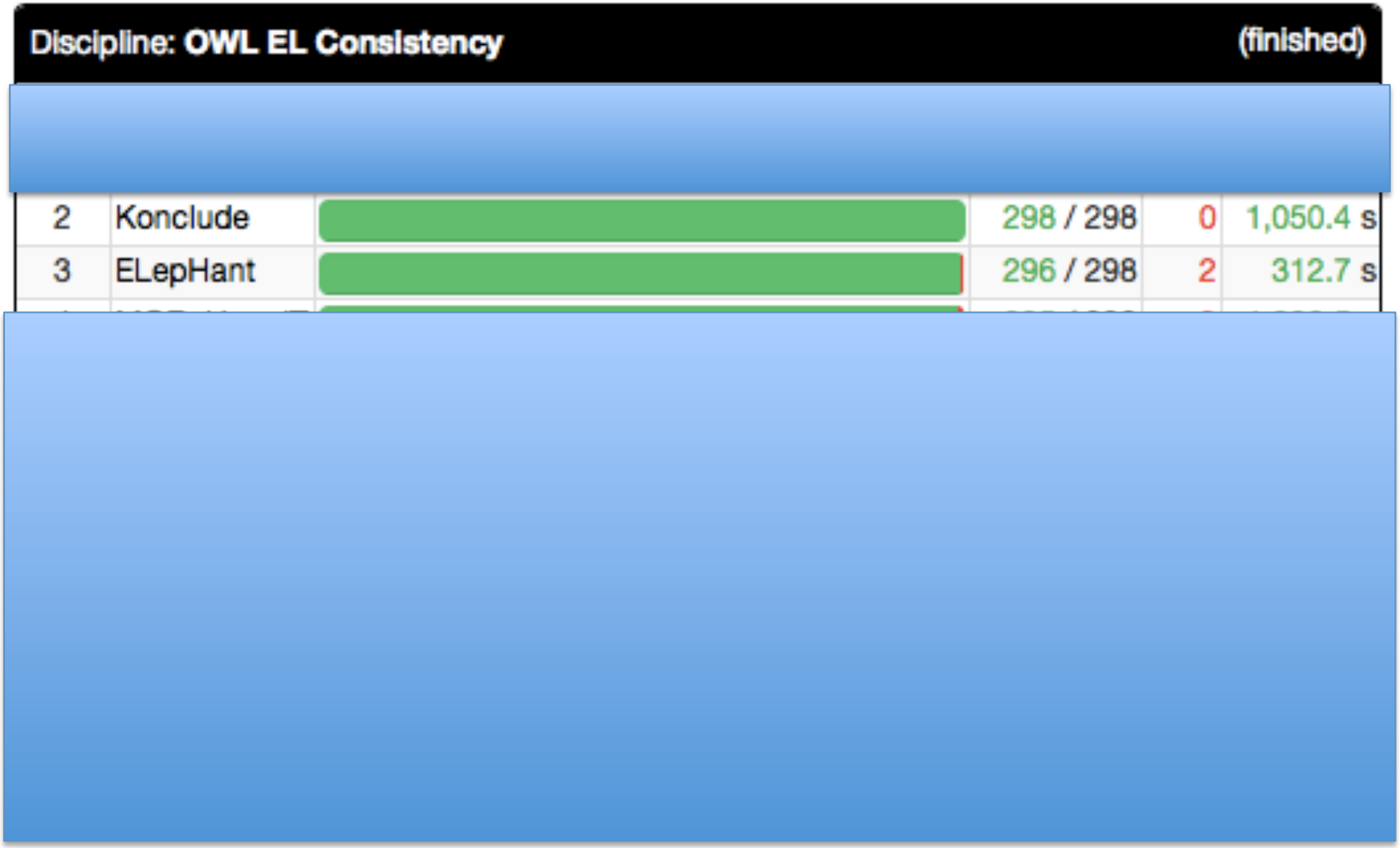
EL Consistency



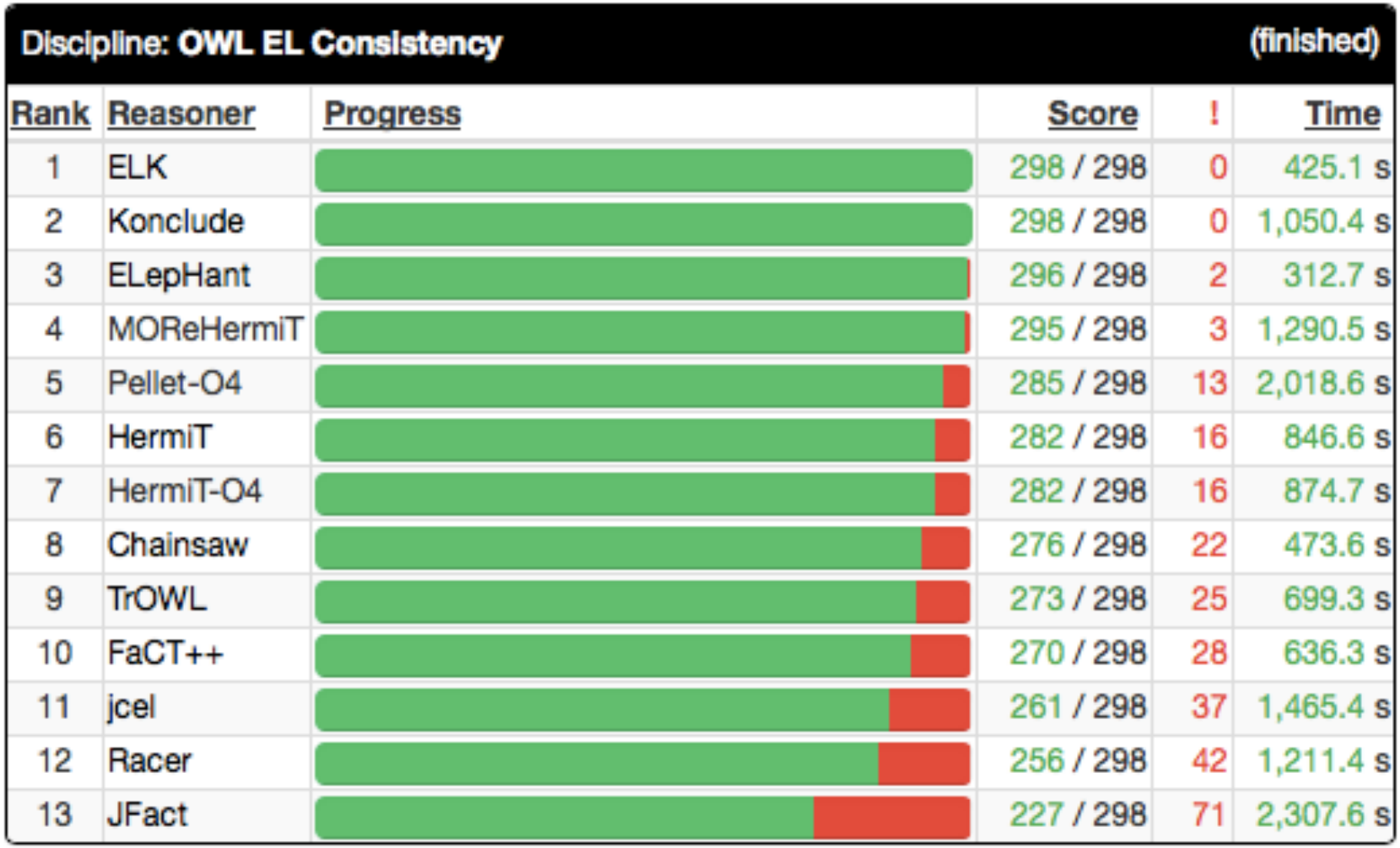
EL Consistency



EL Consistency

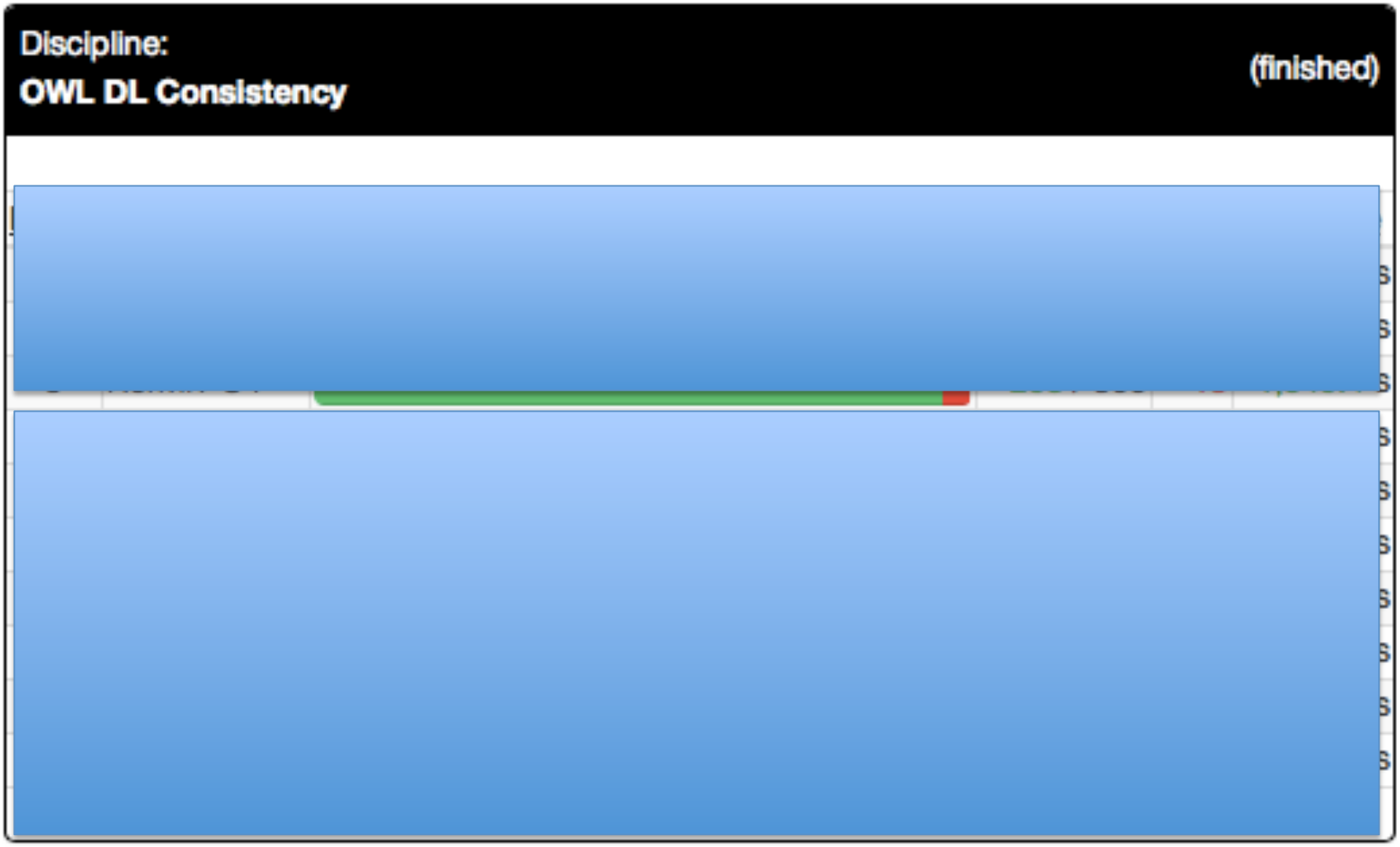


EL Consistency

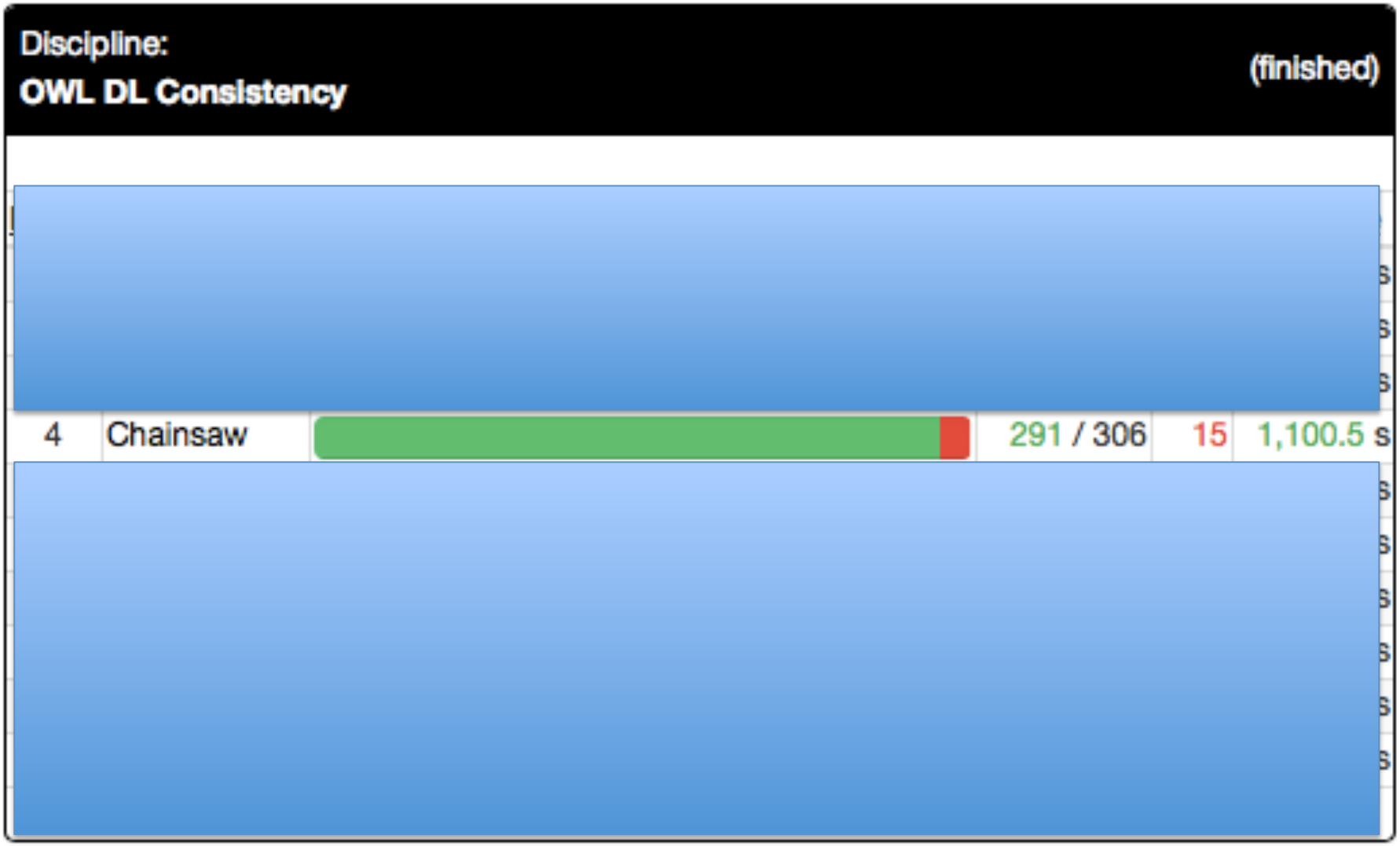


Discipline: **OWL EL Consistency**					(finished)
Rank	**Reasoner**	**Progress**	**Score**	**!**	**Time**
1	ELK		298 / 298	0	425.1 s
2	Konclude		298 / 298	0	1,050.4 s
3	ELepHant		296 / 298	2	312.7 s
4	MOReHermiT		295 / 298	3	1,290.5 s
5	Pellet-O4		285 / 298	13	2,018.6 s
6	HermiT		282 / 298	16	846.6 s
7	HermiT-O4		282 / 298	16	874.7 s
8	Chainsaw		276 / 298	22	473.6 s
9	TrOWL		273 / 298	25	699.3 s
10	FaCT++		270 / 298	28	636.3 s
11	jcel		261 / 298	37	1,465.4 s
12	Racer		256 / 298	42	1,211.4 s
13	JFact		227 / 298	71	2,307.6 s

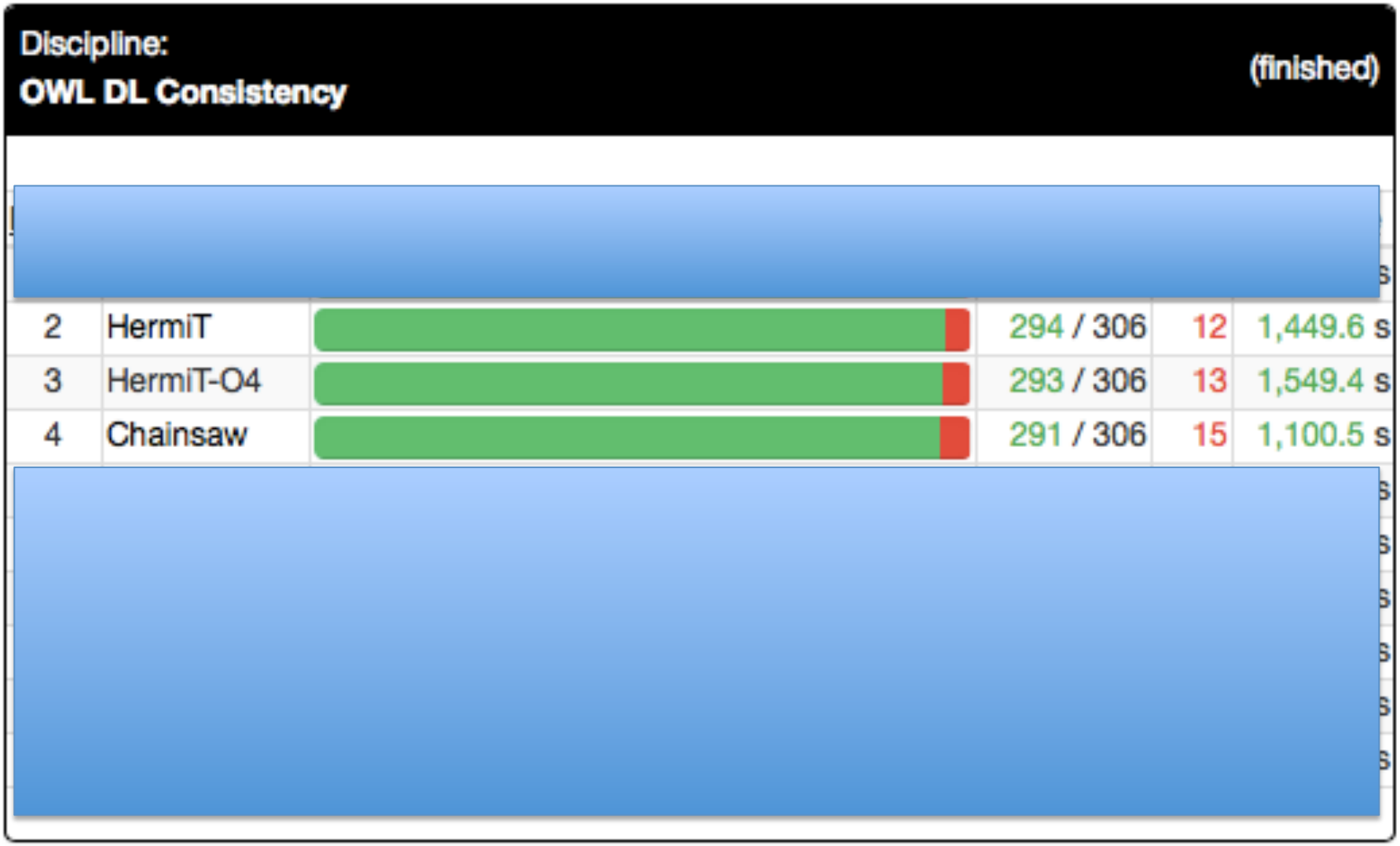
DL Consistency



DL Consistency



DL Consistency

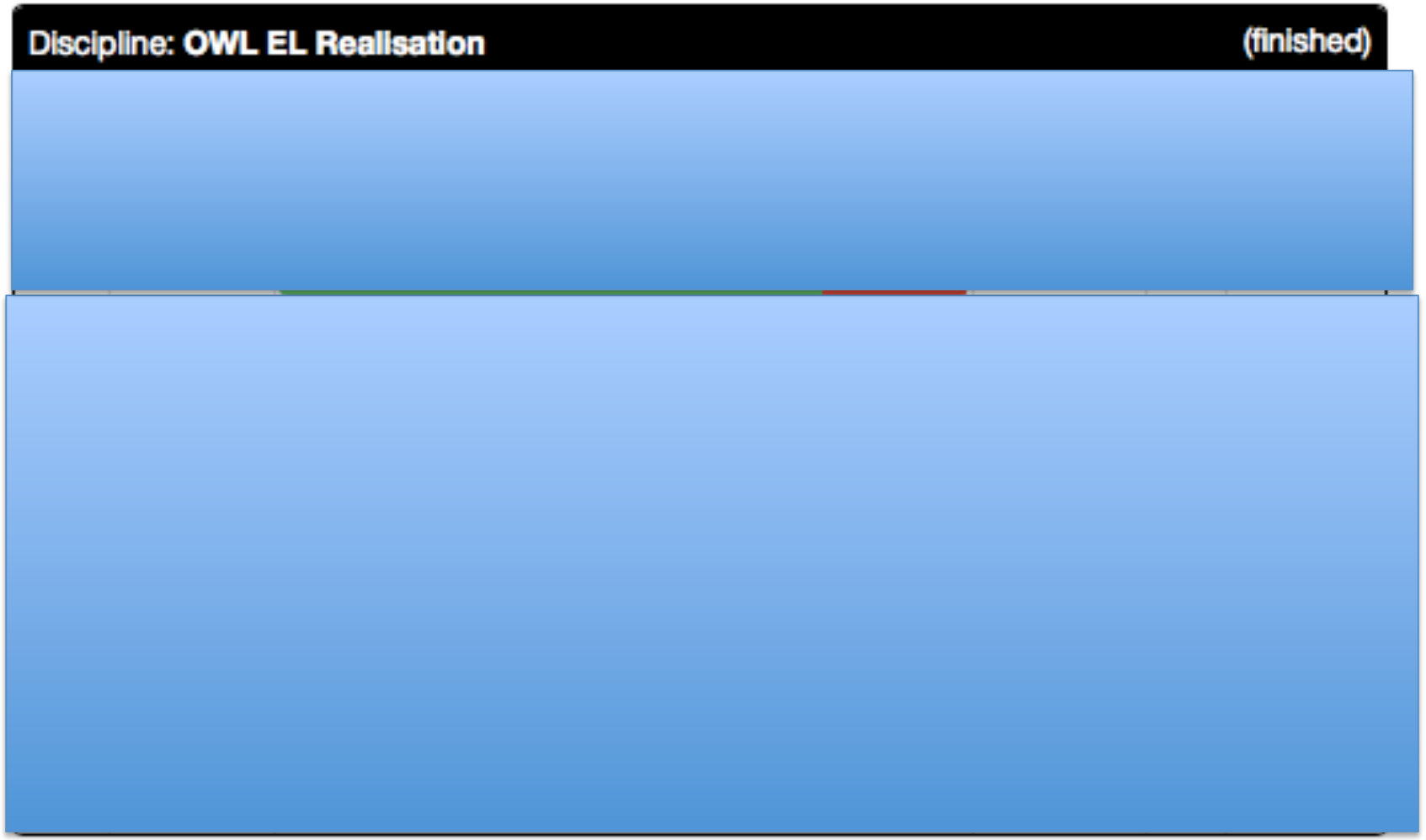


DL Consistency

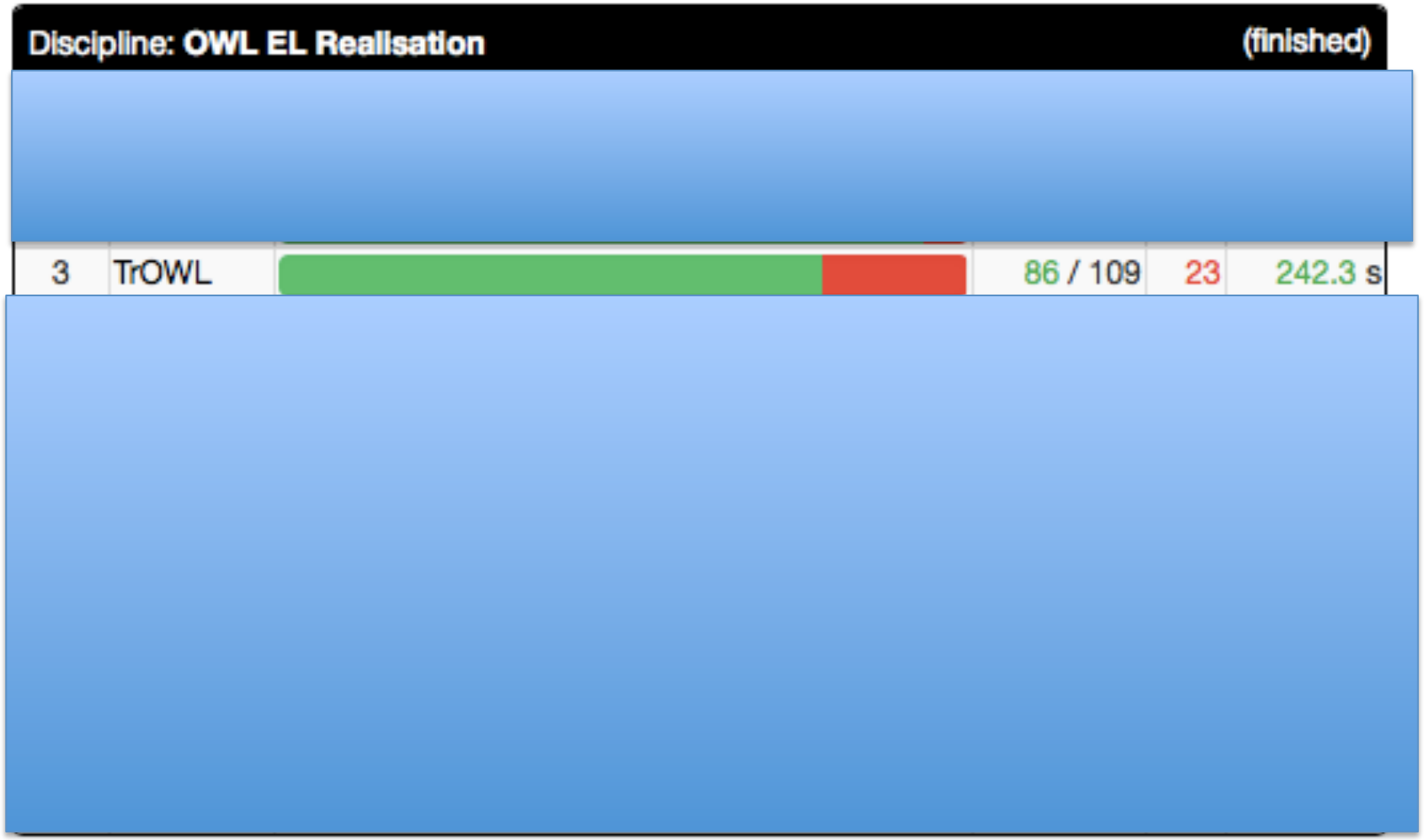
Discipline:
OWL DL Consistency (finished)

Rank	Reasoner	Progress	Score	!	Time
1	Konclude		303 / 306	3	1,341.9 s
2	HermiT		294 / 306	12	1,449.6 s
3	HermiT-O4		293 / 306	13	1,549.4 s
4	Chainsaw		291 / 306	15	1,100.5 s
5	Pellet-O4		278 / 306	28	1,194.1 s
6	FaCT++		276 / 306	30	1,341.2 s
7	TrOWL		266 / 306	40	1,089.3 s
8	MOReHermiT		253 / 306	53	1,823.0 s
9	Racer		239 / 306	67	2,604.3 s
10	JFact		166 / 306	140	1,469.9 s

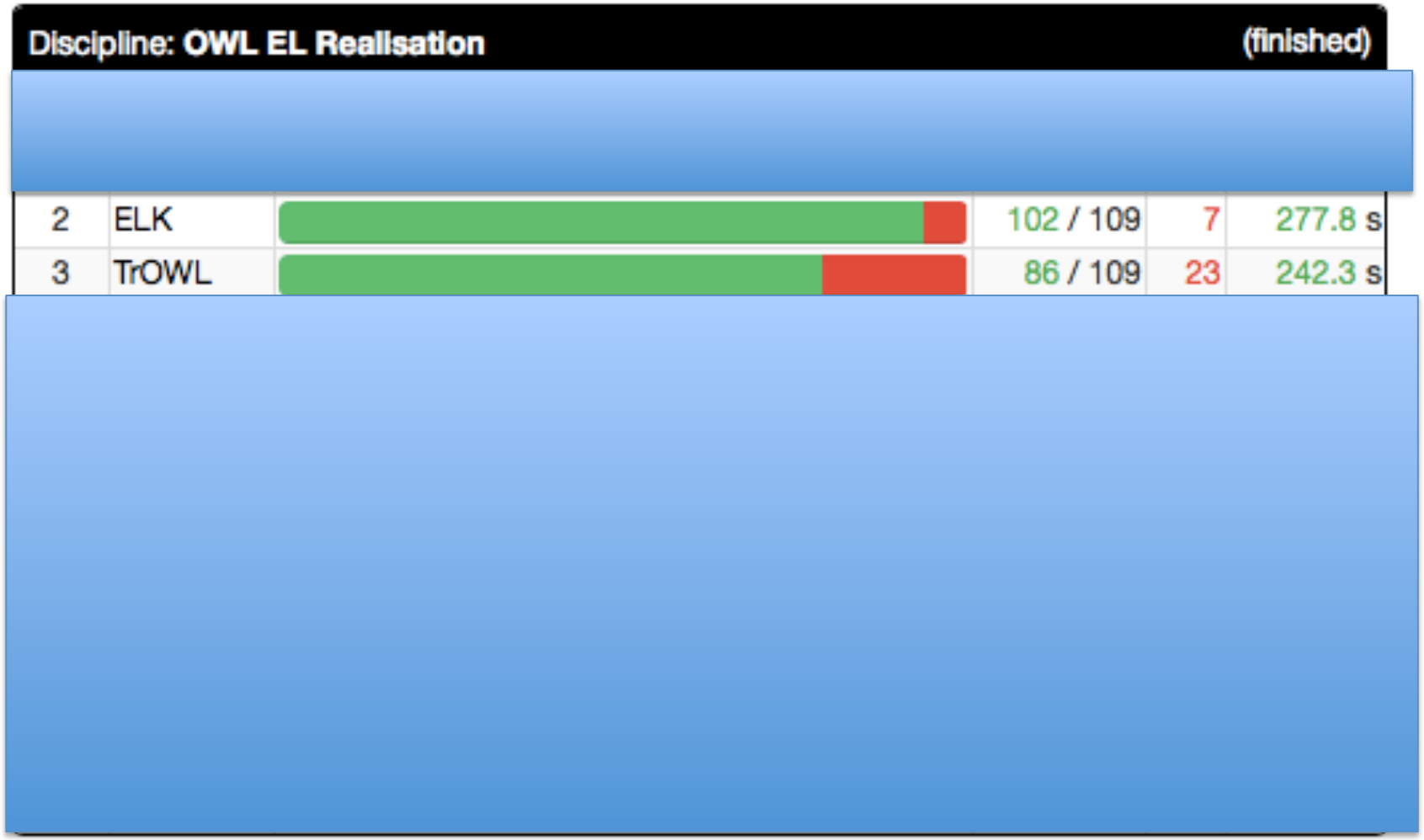
EL Realization



EL Realization



EL Realization

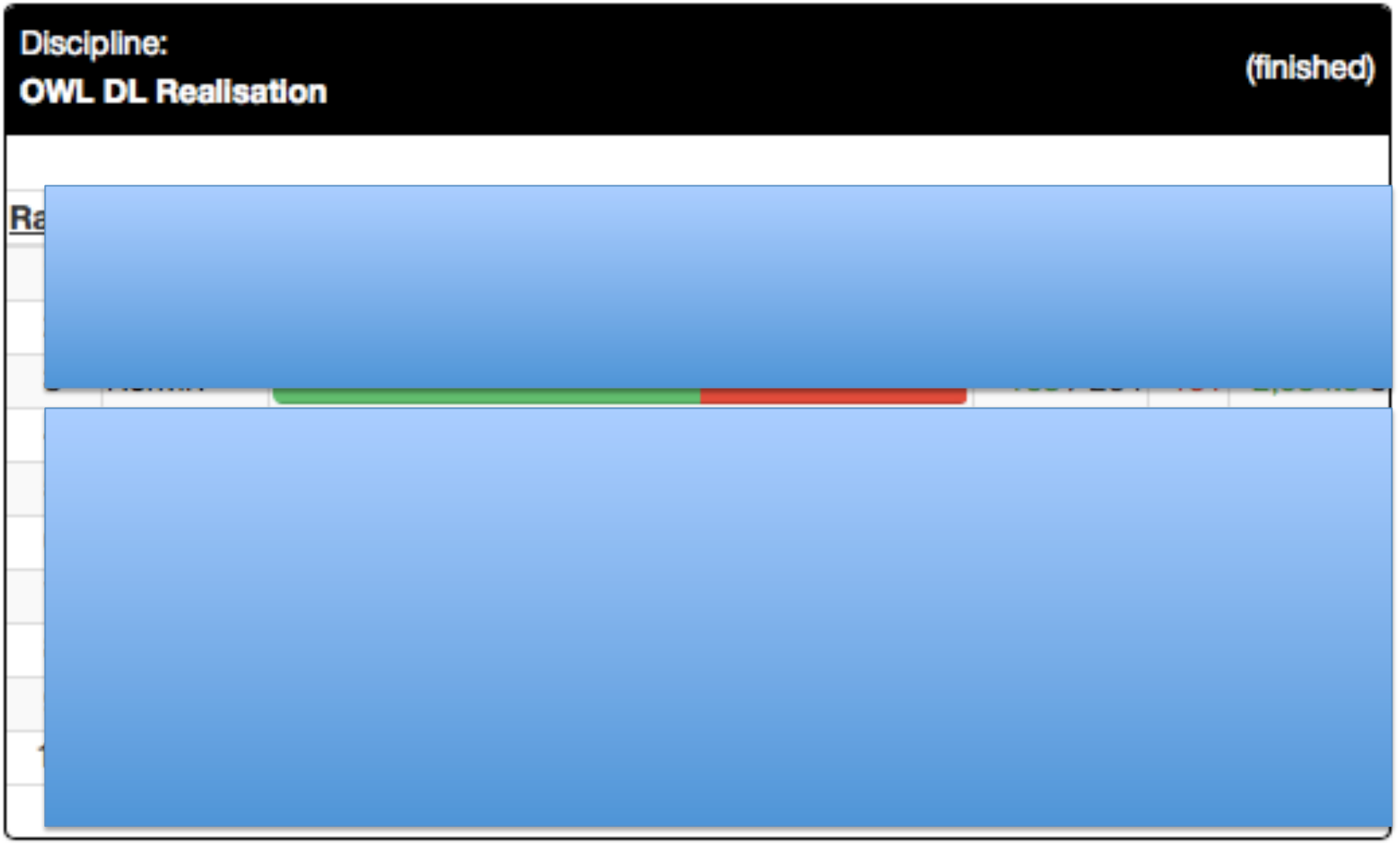


EL Realization

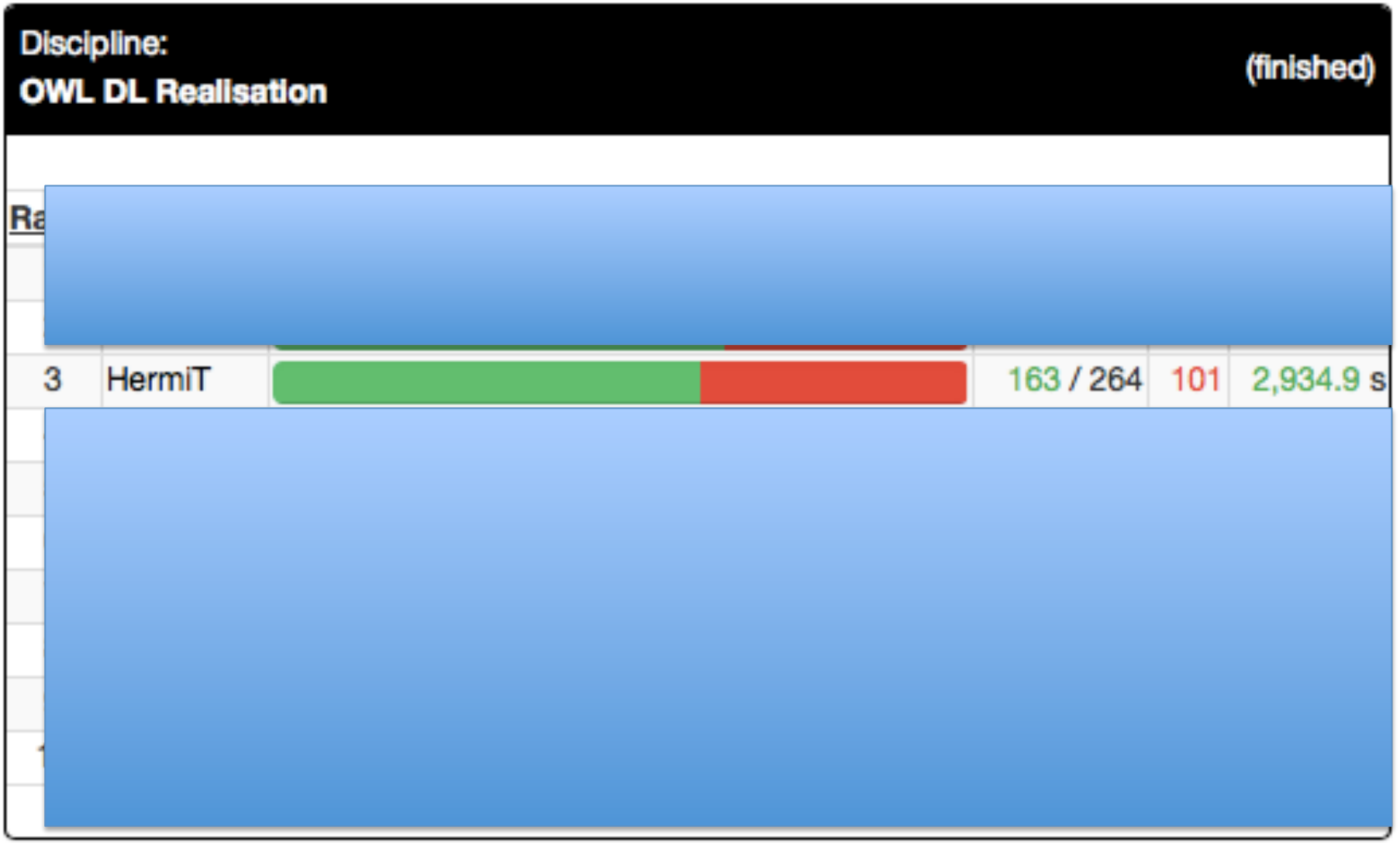
Discipline: OWL EL Realisation (finished)

Rank	Reasoner	Progress	Score	!	Time
1	Konclude		104 / 109	5	229.9 s
2	ELK		102 / 109	7	277.8 s
3	TrOWL		86 / 109	23	242.3 s
4	PAGOdA		86 / 109	23	1,771.7 s
5	ELepHant		84 / 109	25	424.8 s
6	FaCT++		79 / 109	30	354.2 s
7	JFact		63 / 109	46	280.7 s
8	Pellet-O4		60 / 109	49	1,154.3 s
9	HermiT		57 / 109	52	905.1 s
10	HermiT-O4		57 / 109	52	934.4 s
11	Chainsaw		43 / 109	66	251.9 s
12	Racer		32 / 109	77	518.8 s
13	jcel		0 / 109	109	0.0 s

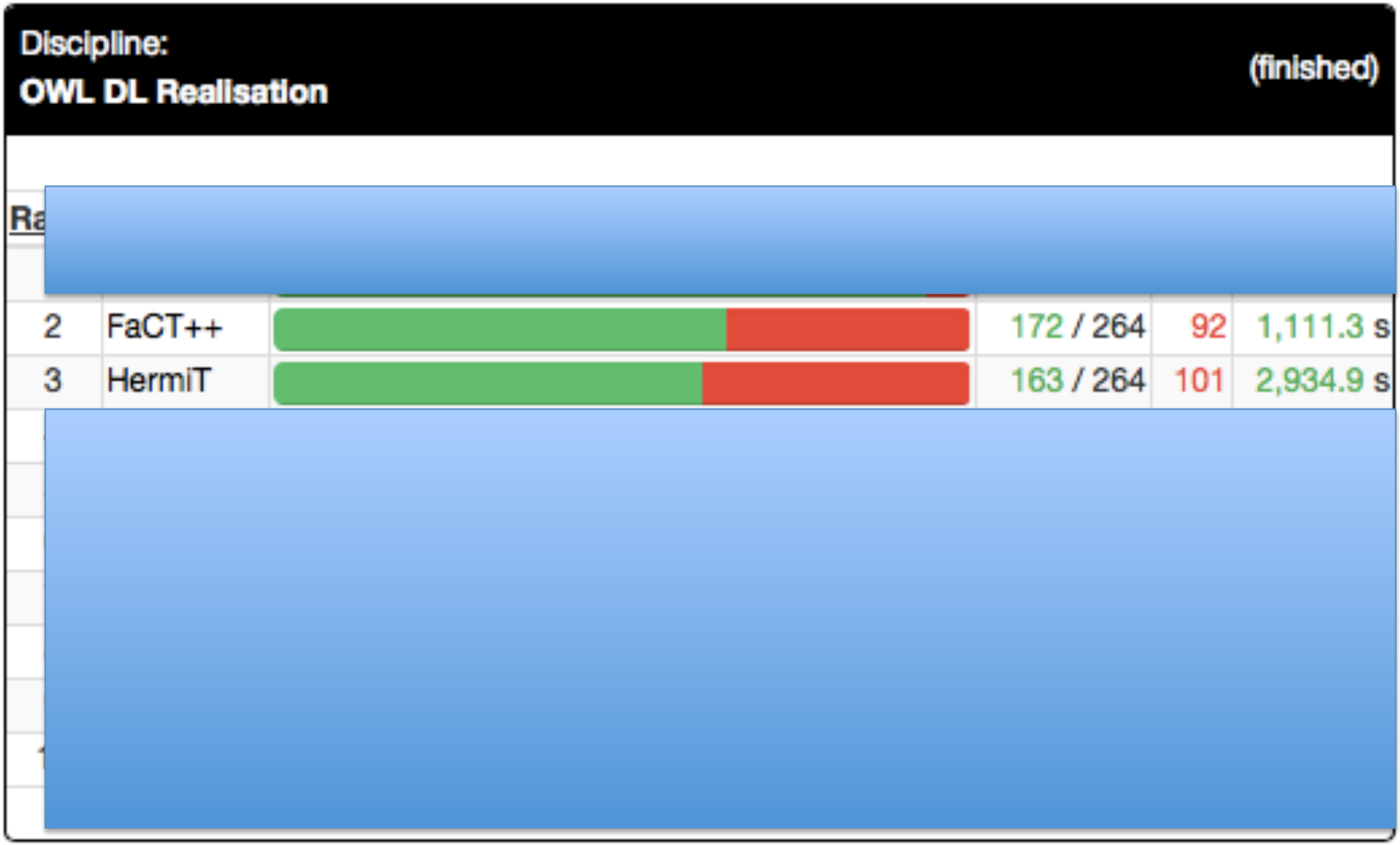
DL Realization



DL Realization



DL Realization

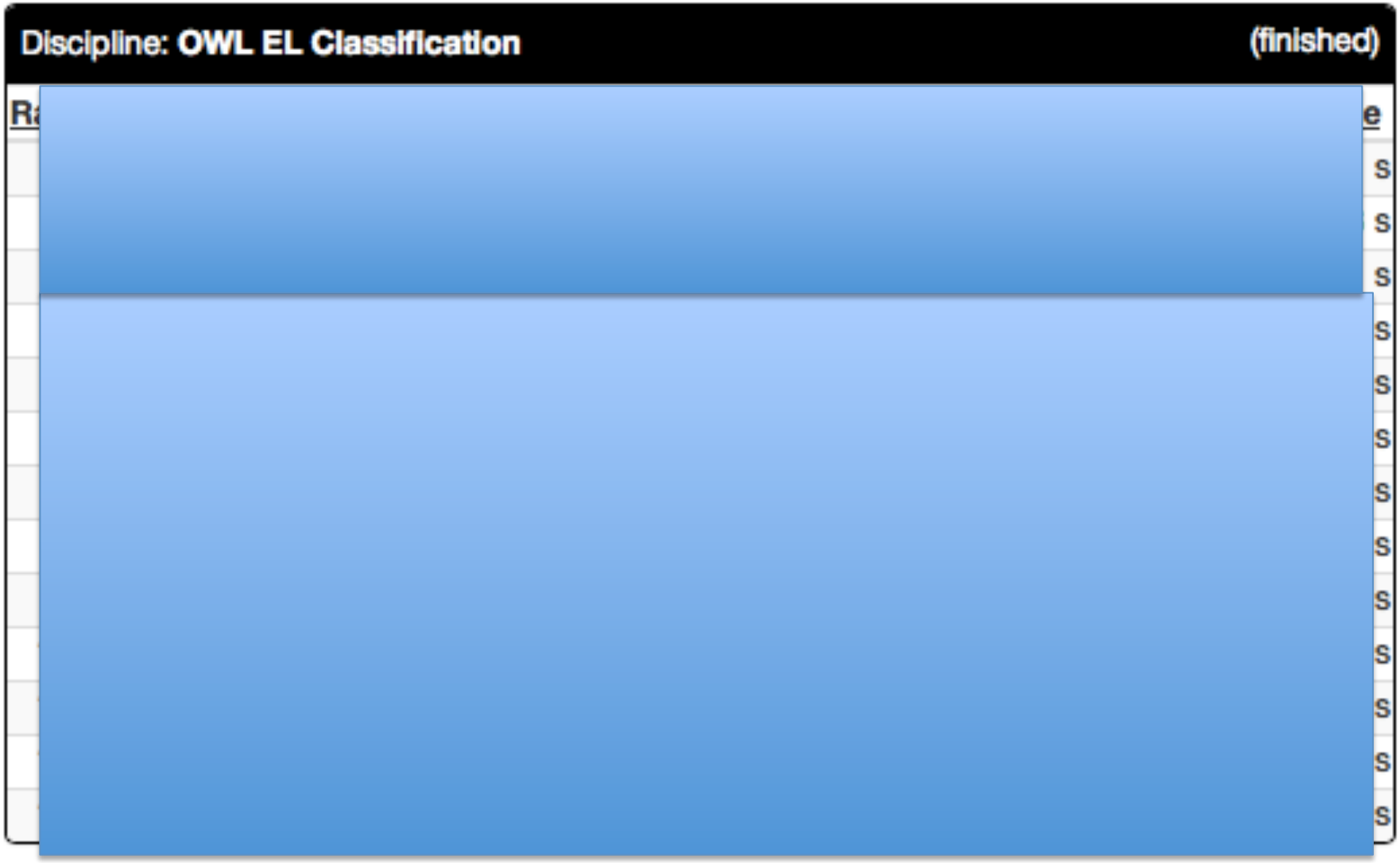


DL Realization

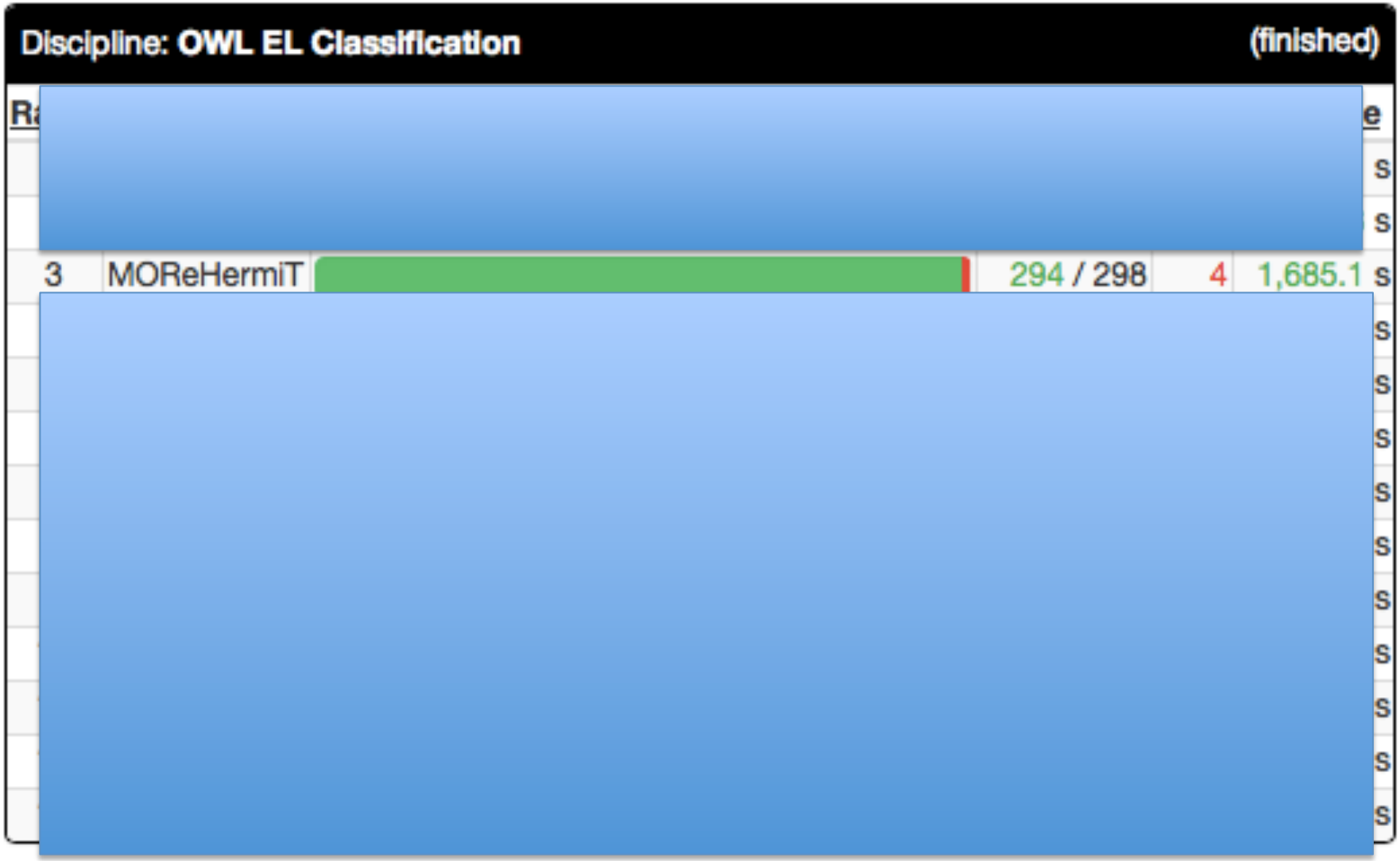
Discipline:
OWL DL Realisation (finished)

Rank	Reasoner	Progress	Score	!	Time
1	Konclude		247 / 264	17	739.3 s
2	FaCT++		172 / 264	92	1,111.3 s
3	HermiT		163 / 264	101	2,934.9 s
4	HermiT-O4		162 / 264	102	3,022.5 s
5	TrOWL		150 / 264	114	503.5 s
6	Pellet-O4		136 / 264	128	1,434.2 s
7	JFact		109 / 264	155	1,252.6 s
8	PAGOdA		104 / 264	160	3,437.5 s
9	Chainsaw		79 / 264	185	1,067.6 s
10	Racer		46 / 264	218	294.8 s

EL Classification



EL Classification



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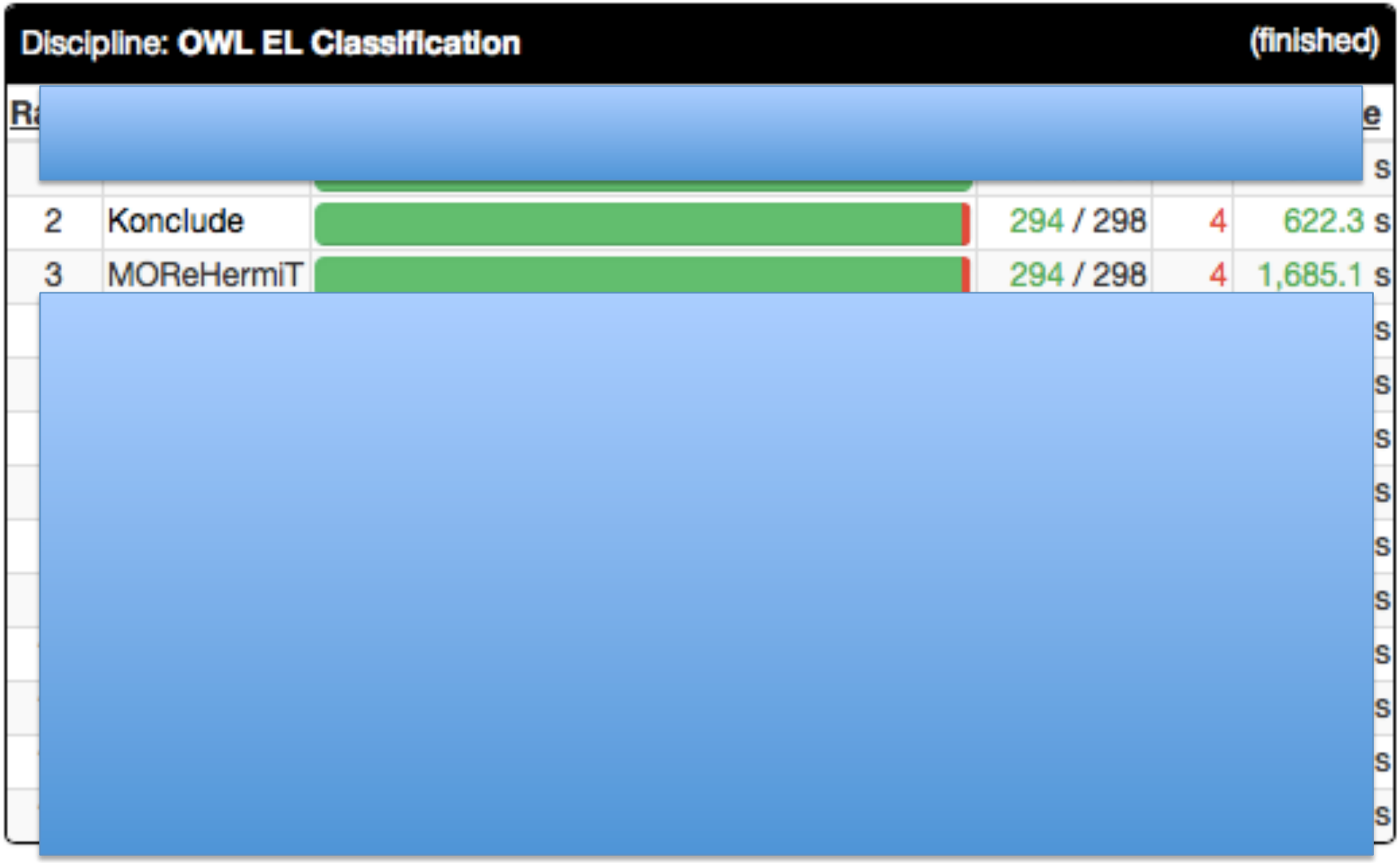
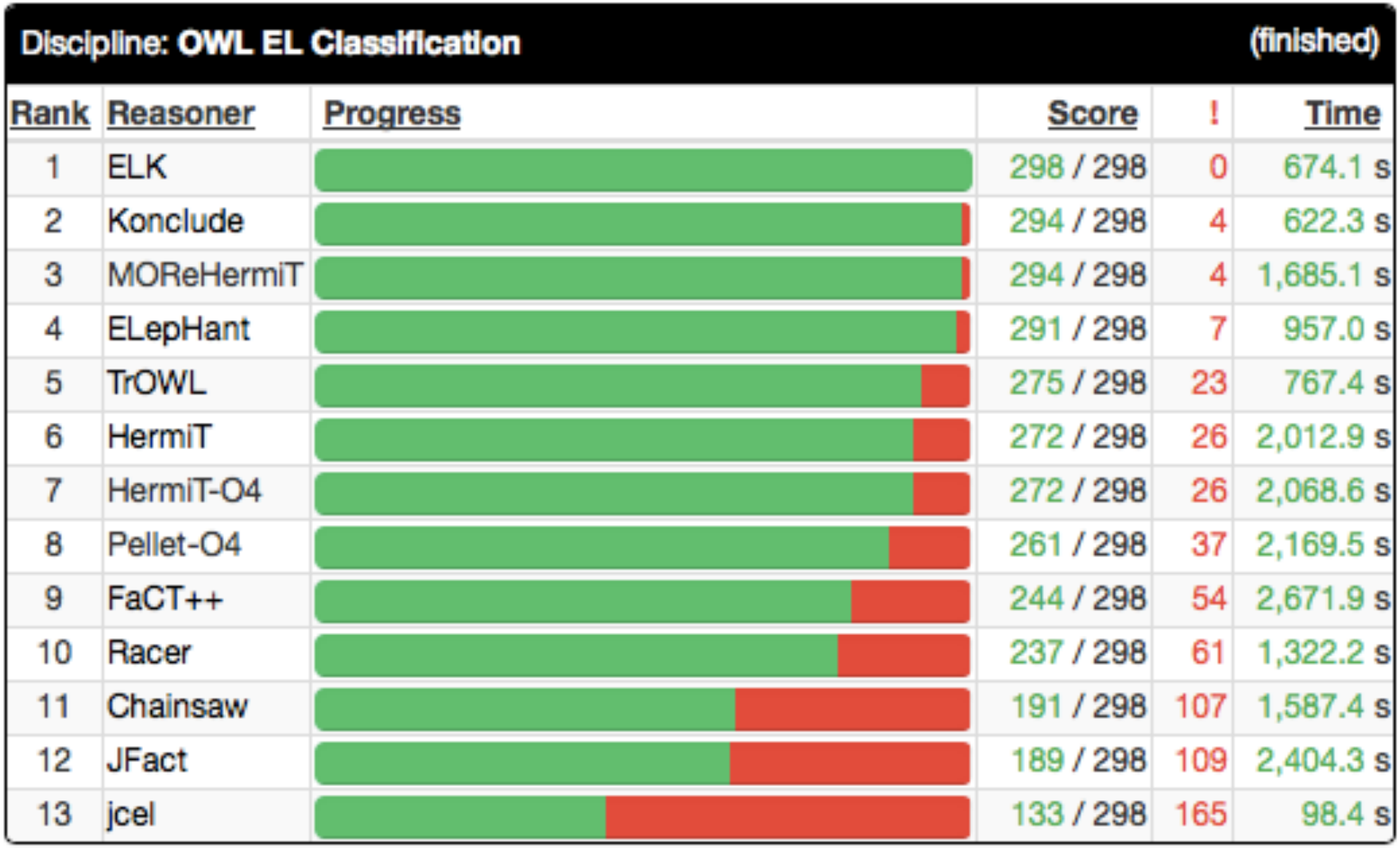
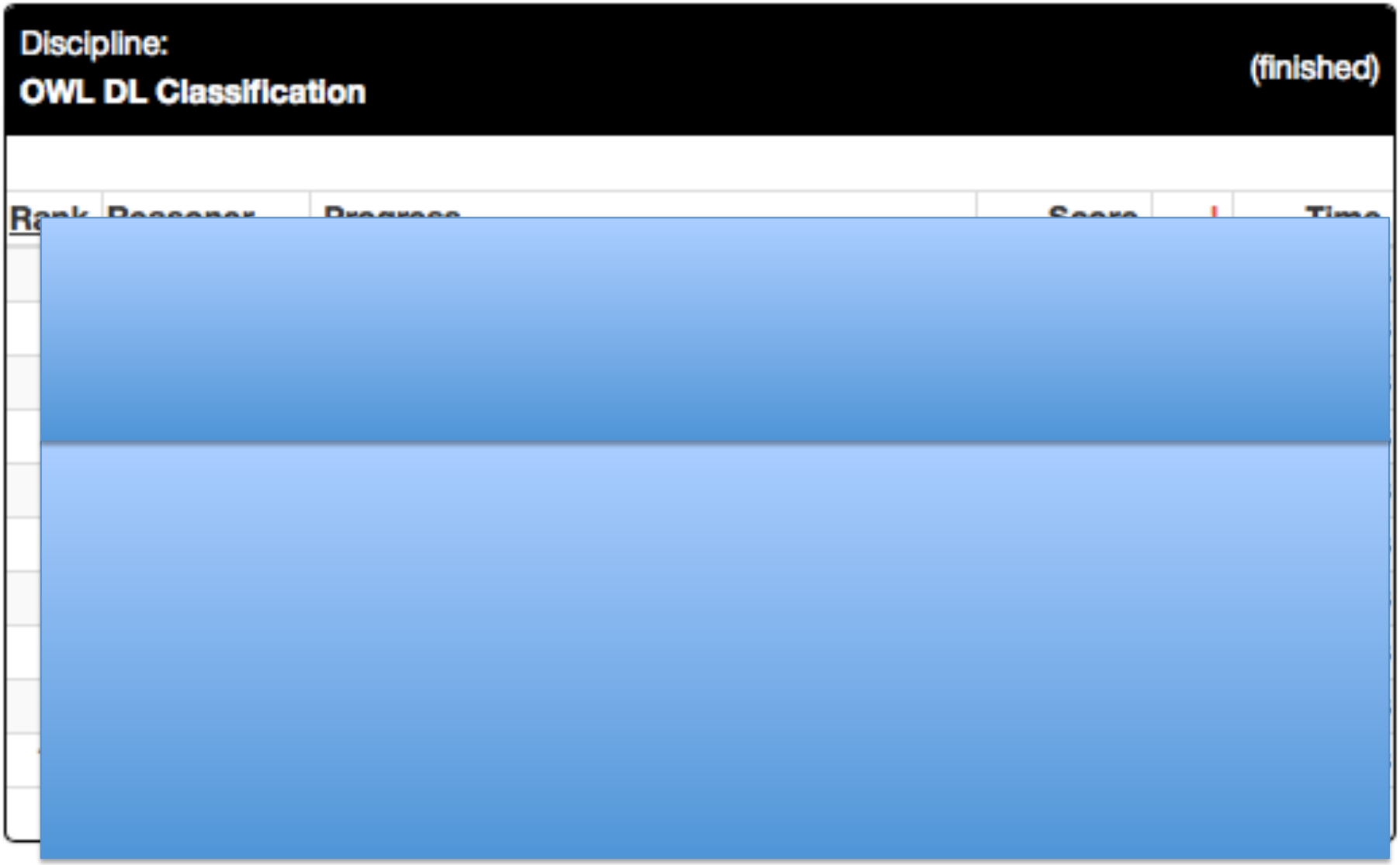


EL Classification

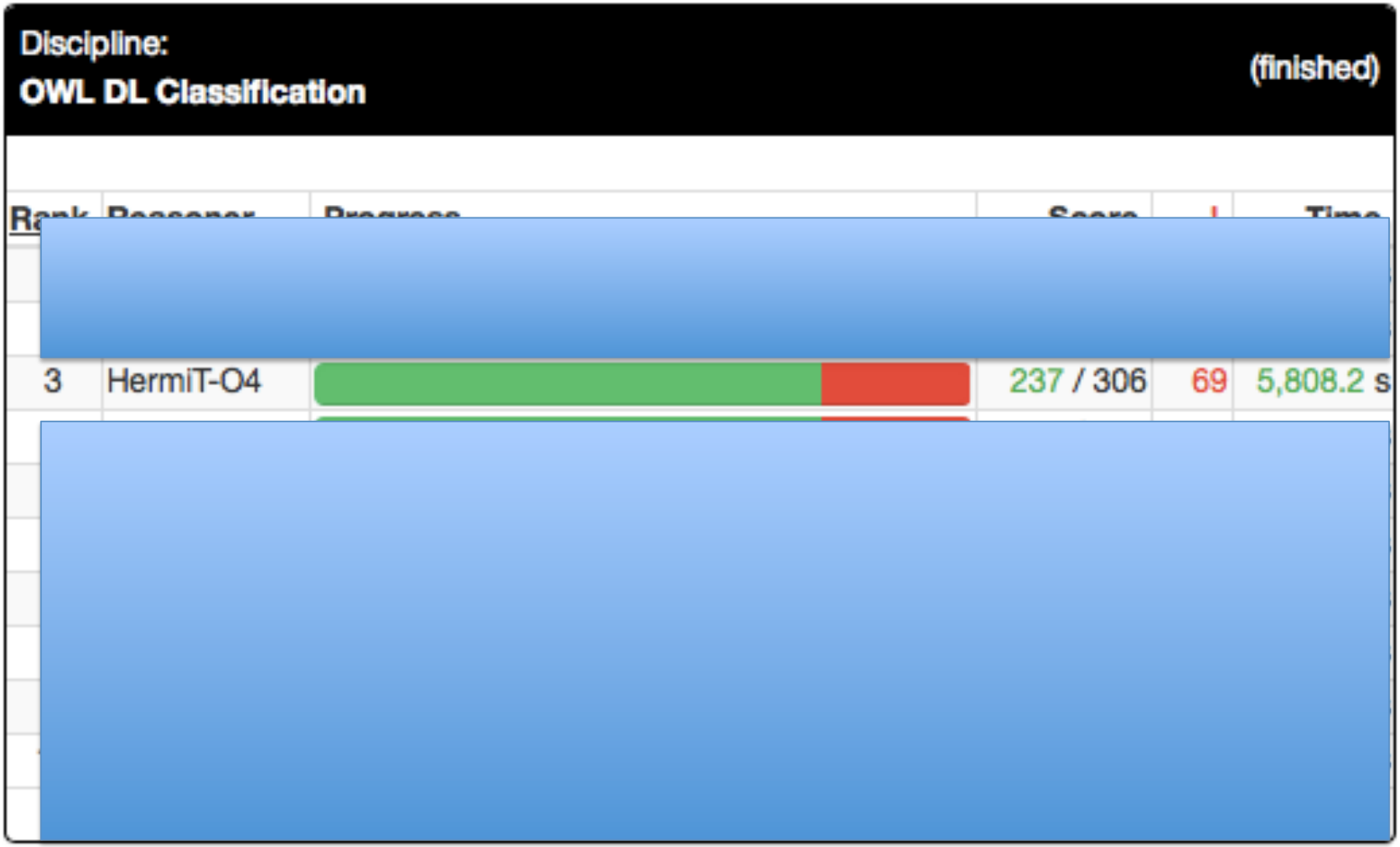


Discipline: **OWL EL Classification**					(finished)
Rank	**Reasoner**	**Progress**	**Score**	**!**	**Time**
1	ELK		298 / 298	0	674.1 s
2	Konclude		294 / 298	4	622.3 s
3	MOReHermiT		294 / 298	4	1,685.1 s
4	ELepHant		291 / 298	7	957.0 s
5	TrOWL		275 / 298	23	767.4 s
6	HermiT		272 / 298	26	2,012.9 s
7	HermiT-O4		272 / 298	26	2,068.6 s
8	Pellet-O4		261 / 298	37	2,169.5 s
9	FaCT++		244 / 298	54	2,671.9 s
10	Racer		237 / 298	61	1,322.2 s
11	Chainsaw		191 / 298	107	1,587.4 s
12	JFact		189 / 298	109	2,404.3 s
13	jcel		133 / 298	165	98.4 s

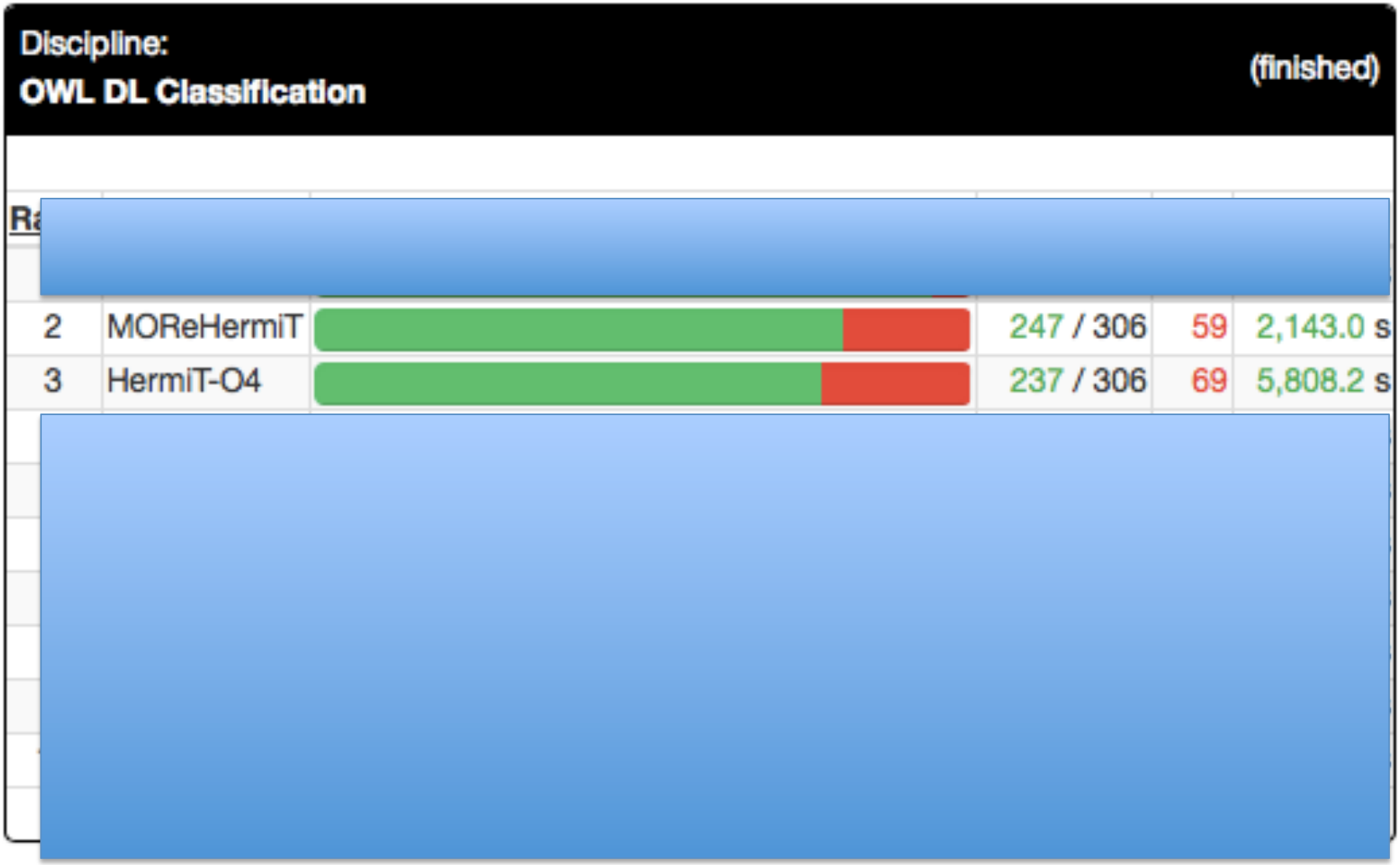
DL Classification



DL Classification



DL Classification

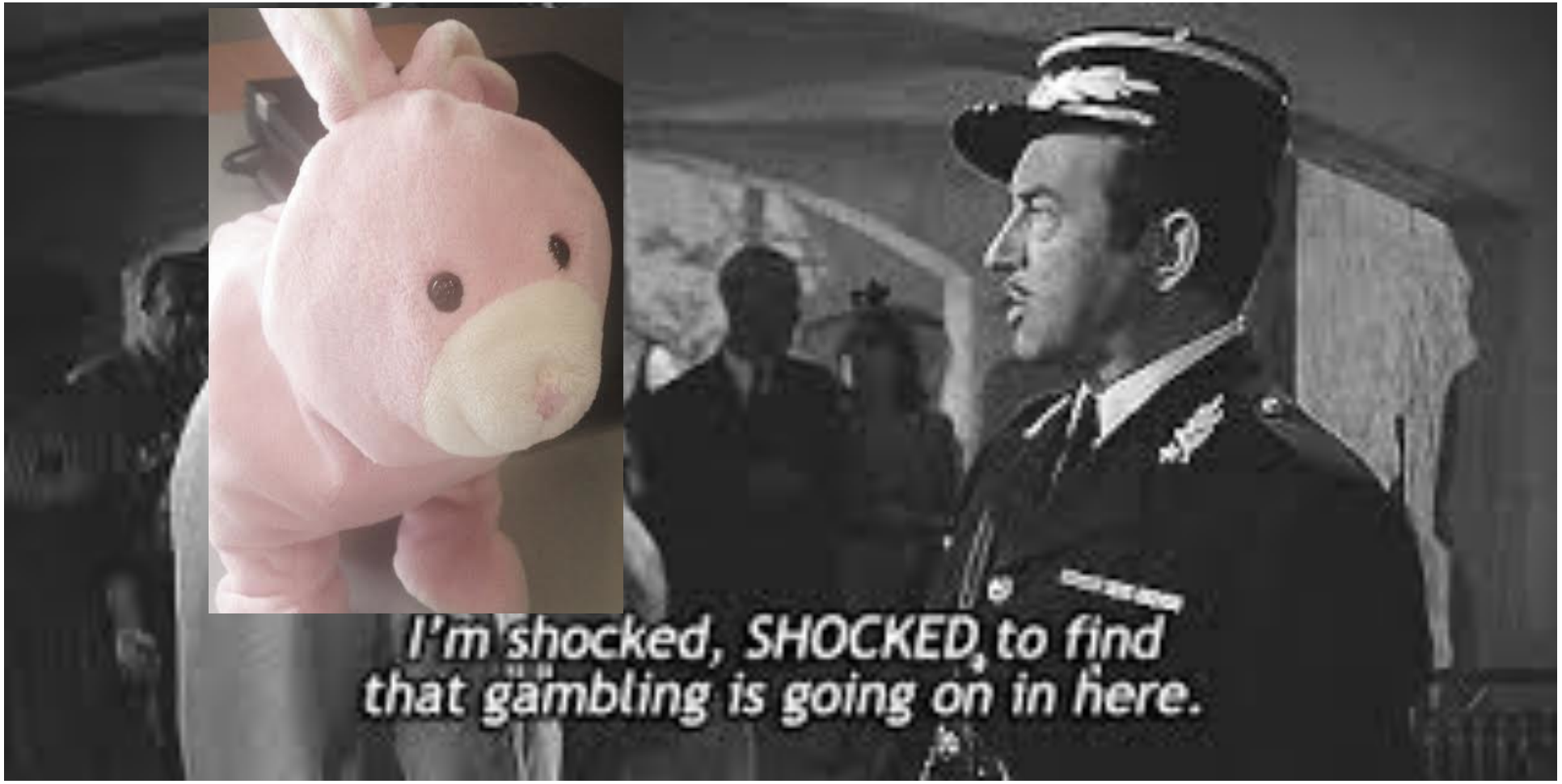


DL Classification

Discipline:
OWL DL Classification (finished)

Rank	Reasoner	Progress	Score	!	Time
1	Konclude		288 / 306	18	1,308.9 s
2	MOReHermiT		247 / 306	59	2,143.0 s
3	HermiT-O4		237 / 306	69	5,808.2 s
4	HermiT		236 / 306	70	5,416.4 s
5	TrOWL		201 / 306	105	971.1 s
6	FaCT++		200 / 306	106	1,361.3 s
7	Pellet-O4		187 / 306	119	2,179.3 s
8	Racer		164 / 306	142	1,103.8 s
9	JFact		128 / 306	178	889.5 s
10	Chainsaw		119 / 306	187	1,709.0 s

The Betting



Pay your money, take your chances

- We had 64 bets
  - Every slip bought!
- The pot is 56€
- The top three closest split the pot (40-30-30)
- The winners are:
  - 3rd: Yizheng Zhao
    - MORe EL-CL for 296; MORe got 294
  - 2nd: Despoina Trivela
    - Jfact EL-CL for 190; Jfact got 189!
  - 1st: Iliana Petrova
    - ELK EL-CL for 298; ELK got 298!

Most amusing bets

- Despoina Trivela
  - Got second best bet
    - Jfact EL-CL for 190; Jfact got 189!
  - Got second worst bet
    - MORe DL-CL for 110; MORe got 247!
- Yevgeny Kazakov
  - Bet against ELepHant for 143; it solved 291!







Organization

- ORE Competition Organisers
  - Birte Glimm (University of Ulm)
  - Rafael Gonçalves (Stanford University)
  - Ernesto Jiménez-Ruiz (University of Oxford)
  - Nicolas Matentzoglu (University of Manchester)
  - Bijan Parsia (University of Manchester) Infrastructure
- Local Organization
  - Giorgos Stamou (NT University of Athens)
  - Giorgos Stoilos (NT University of Athens)

Special Thanks

- Konstantin Korovin with Dmitry Tsarkov (University of Manchester)
  - Competition machines!
    - Funded by Royal Society research grant RG080491
- Andreas Steigmiller (University of Ulm)
  - Critical framework technical support!
- Yevgeny Kazakov (University of Ulm)
  - Transport of certificates and betting slips
- Bernardo Cuenca Grau and Yujiao Zhou (University of Oxford)
  - Getting us 85% toward a query answering track

Team Playa of ORE 2015

Sponsors

- Prizes and T-Shirts

More details

https://www.w3.org/community/owled/ore-2015-workshop/