

Loading older invariants

(Alt) In[]:=

```
SetDirectory["C:\\drorbn\\AcademicPensieve\\Talks\\KnotTheoryCongress-2502"]
```

(Alt) Out[]:=

```
C:\\drorbn\\AcademicPensieve\\Talks\\KnotTheoryCongress-2502
```

(Alt) In[]:=

```
øs = Get["../../Projects/HigherRank/Data/theta3-15.m"]
```

(Alt) Out[]:=

(Alt) In[]:=

```
Length[øs]
```

(Alt) Out[]:=

```
313 230
```

(Alt) In[]:=

```
Length[Hs = Get["../../Projects/HigherRank/Data/HOMFLYPT3-15.m"]]
```

(Alt) Out[]:=

```
313 230
```

(Alt) In[]:=

```
Length[Khs = Get["../../Projects/HigherRank/Data/Kh3-15.m"]]
```

(Alt) Out[]:=

```
313 230
```

(Alt) In[]:=

```
HKhs = MapThread[(#1[[1]] → Expand@{#1[[2]], #2[[2]]) &, {Hs, Khs}]
```

(Alt) Out[]:=

(Alt) In[]:=

```
HKhes = MapThread[(#1[[1]] → Expand@{#1[[2]], #2[[2]]) &, {HKhs, øs}]
```

(Alt) Out[]:=

Loading ρ_2

(Alt) In[]:=

```
 $\rho_2s$  = Join@@(Get["Rho2Data/" <> #] & /@
{"Rho2_3-10.m", "Rho2_11.m", "Rho2_12.m", "Rho2_13.m", "Rho2_14.m", "Rho2_15.m"})
```

(Alt) Out[]:=

(Alt) In[]:=

```
Length[ $\rho_2s$ ]
```

(Alt) Out[]:=

```
313 230
```

```
(Alt) In[ ]:=
   $\theta\rho2s = \text{MapThread} [ (\#1[[1]] \rightarrow \text{Expand}@{\#1[[2]], \#2[[2]])} \&, \{\text{Take}[\theta s, \text{Length}[\rho2s]], \rho2s\}]$ 
```

```
(Alt) Out[ ]=
```



```
(Alt) In[ ]:=
   $\text{HKH}\theta\rho2s = \text{MapThread} [ (\#1[[1]] \rightarrow \text{Expand}@{\#1[[2]], \#2[[2]])} \&, \{\text{Take}[\text{HKhs}, \text{Length}@\theta\rho2s], \theta\rho2s\}]$ 
```

```
(Alt) Out[ ]=
```



Stats

```
(Alt) In[ ]:=
  Stats[n_] := Module[{a, b},
    {"Knots", a = Length@Select[\theta s, #[[1, 1]] ≤ n &],
     "(H,Kh)", b = Length@Union@Expand[Last /@ Select[\text{HKhs}, #[[1, 1]] ≤ n &]], b - a,
     "(Δ,ρ₁)", b = Length@Union@Expand[Last /@ Select[\theta s, #[[1, 1]] ≤ n &] /. T2 → 1], b - a,
     "(Δ,θ)", b = Length@Union@Expand[Last /@ Select[\theta s, #[[1, 1]] ≤ n &]], b - a,
     "(Δ,θ,ρ₂)", b = Length@Union@Expand[Last /@ Select[\theta\rho2s, #[[1, 1]] ≤ n &]], b - a,
     "(H,Kh,θ)", b = Length@Union@Expand[Last /@ Select[\text{HKH}\theta s, #[[1, 1]] ≤ n &]], b - a,
     "(H,Kh,θ,ρ₂)", b = Length@Union@Expand[Last /@ Select[\text{HKH}\theta\rho2s, #[[1, 1]] ≤ n &]], b - a
    ]]
```

```
(Alt) In[ ]:=
  Stats[10]
```

```
(Alt) Out[ ]=
  {Knots, 249, (H,Kh), 248, -1, (Δ,ρ₁), 249, 0, (Δ,θ),
   249, 0, (Δ,θ,ρ₂), 249, 0, (H,Kh,θ), 249, 0, (H,Kh,θ,ρ₂), 249, 0}
```

```
(Alt) In[ ]:=
  Stats[11]
```

```
(Alt) Out[ ]=
  {Knots, 801, (H,Kh), 771, -30, (Δ,ρ₁), 787, -14, (Δ,θ), 798,
   -3, (Δ,θ,ρ₂), 798, -3, (H,Kh,θ), 798, -3, (H,Kh,θ,ρ₂), 798, -3}
```

```
(Alt) In[ ]:=
  Stats[12]
```

```
(Alt) Out[ ]=
  {Knots, 2977, (H,Kh), 2763, -214, (Δ,ρ₁), 2882, -95, (Δ,θ), 2958,
   -19, (Δ,θ,ρ₂), 2967, -10, (H,Kh,θ), 2959, -18, (H,Kh,θ,ρ₂), 2967, -10}
```

```
(Alt) In[ ]:=
  Stats[13]
```

```
(Alt) Out[ ]=
  {Knots, 12965, (H,Kh), 11194, -1771, (Δ,ρ₁), 12006, -959, (Δ,θ), 12771, -194,
   (Δ,θ,ρ₂), 12796, -169, (H,Kh,θ), 12780, -185, (H,Kh,θ,ρ₂), 12796, -169}
```

(Alt) In[]:=

Stats [14]

(Alt) Out[]=

{Knots, 59937, (H,Kh), 49149, -10788, (Δ, ρ_1), 53684, -6253, (Δ, θ), 58819, -1118,
(Δ, θ, ρ_2), 58955, -982, (H,Kh, θ), 58875, -1062, (H,Kh, θ, ρ_2), 58956, -981}

(Alt) In[]:=

Stats [15]

(Alt) Out[]=

{Knots, 313230, (H,Kh), 242985, -70245, (Δ, ρ_1), 270316, -42914, (Δ, θ), 306472, -6758,
(Δ, θ, ρ_2), 306889, -6341, (H,Kh, θ), 306675, -6555, (H,Kh, θ, ρ_2), 306893, -6337}