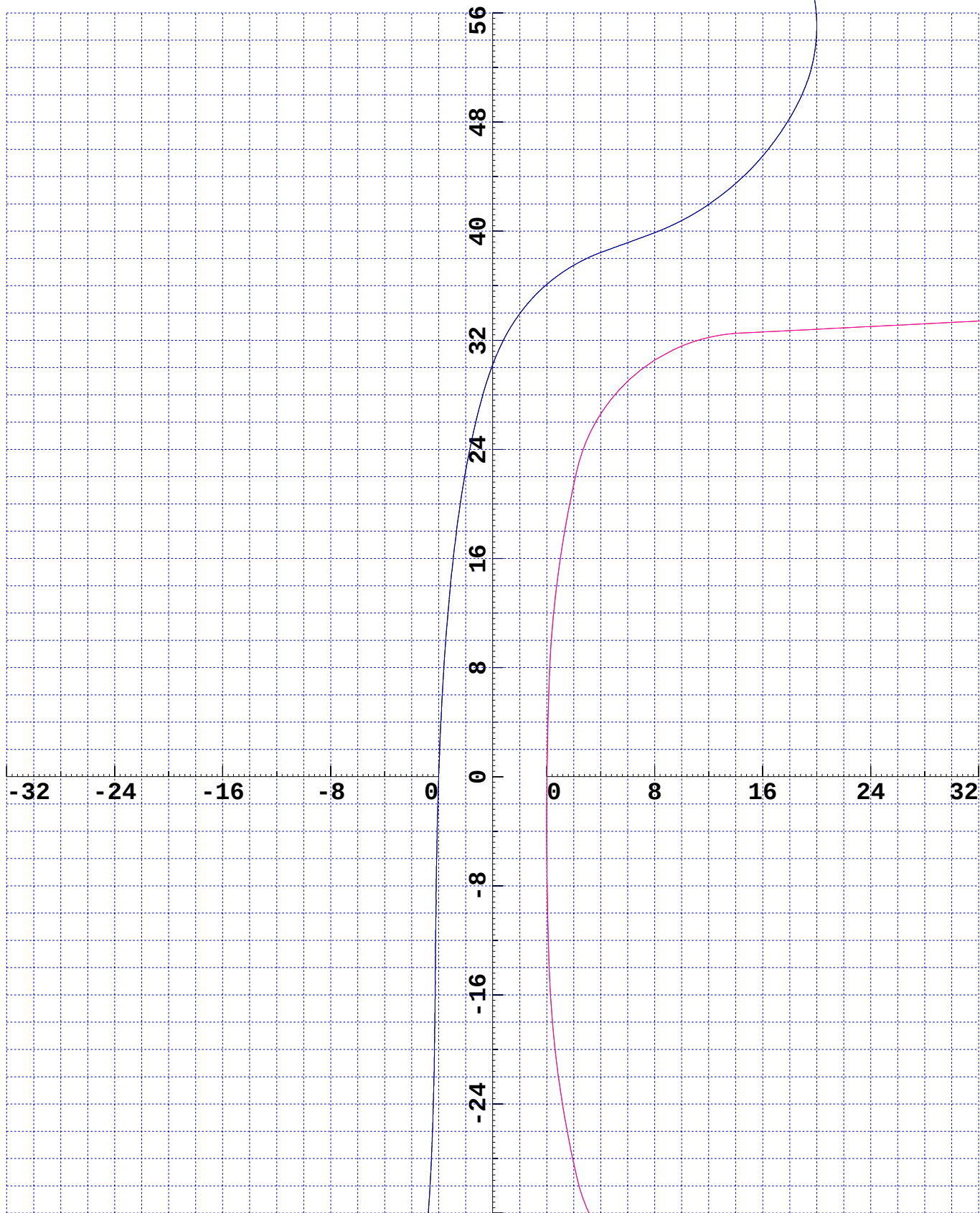
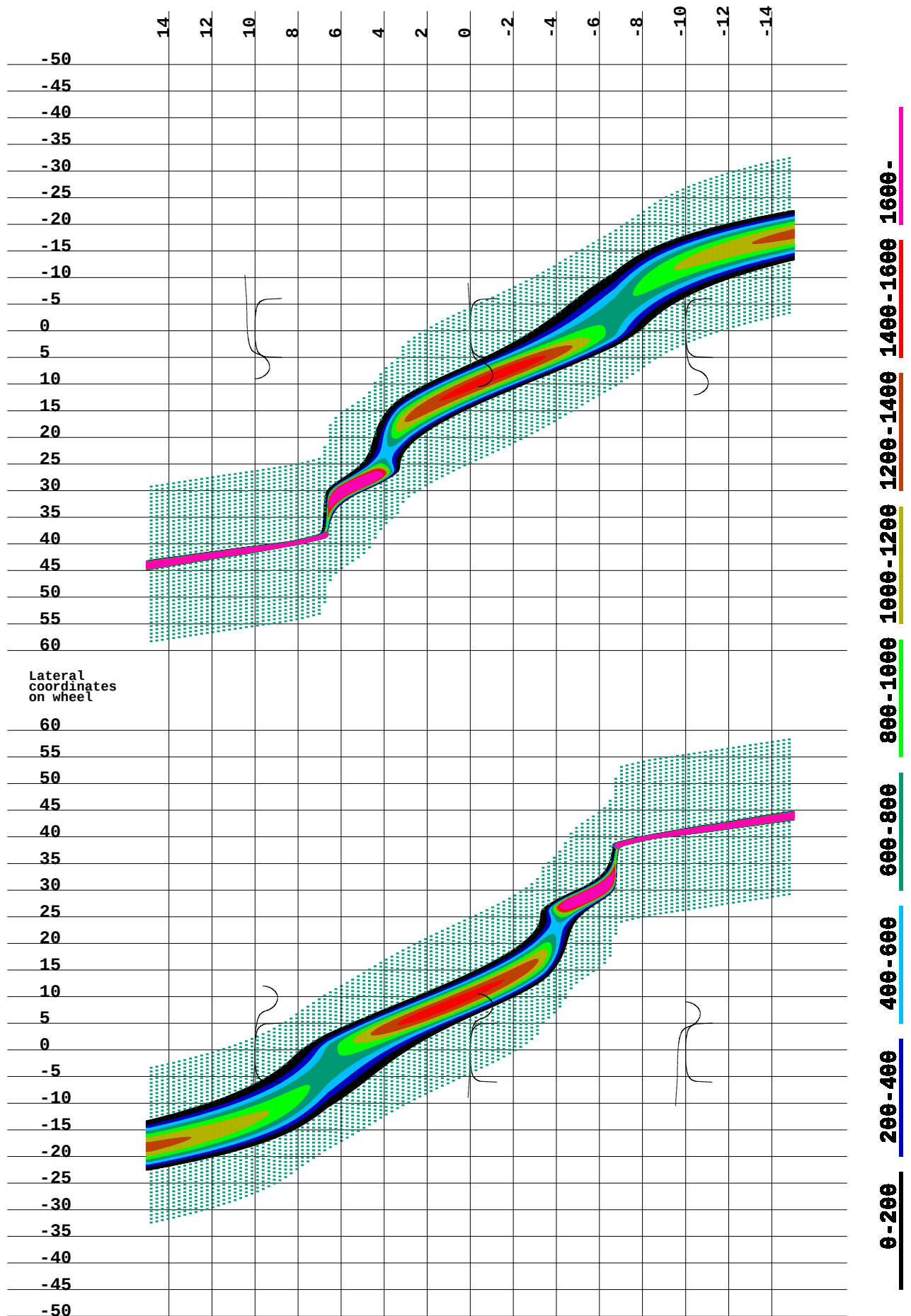


- Right wheel
- Left wheel
- Right rail
- Left rail



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel WRGEOM
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029

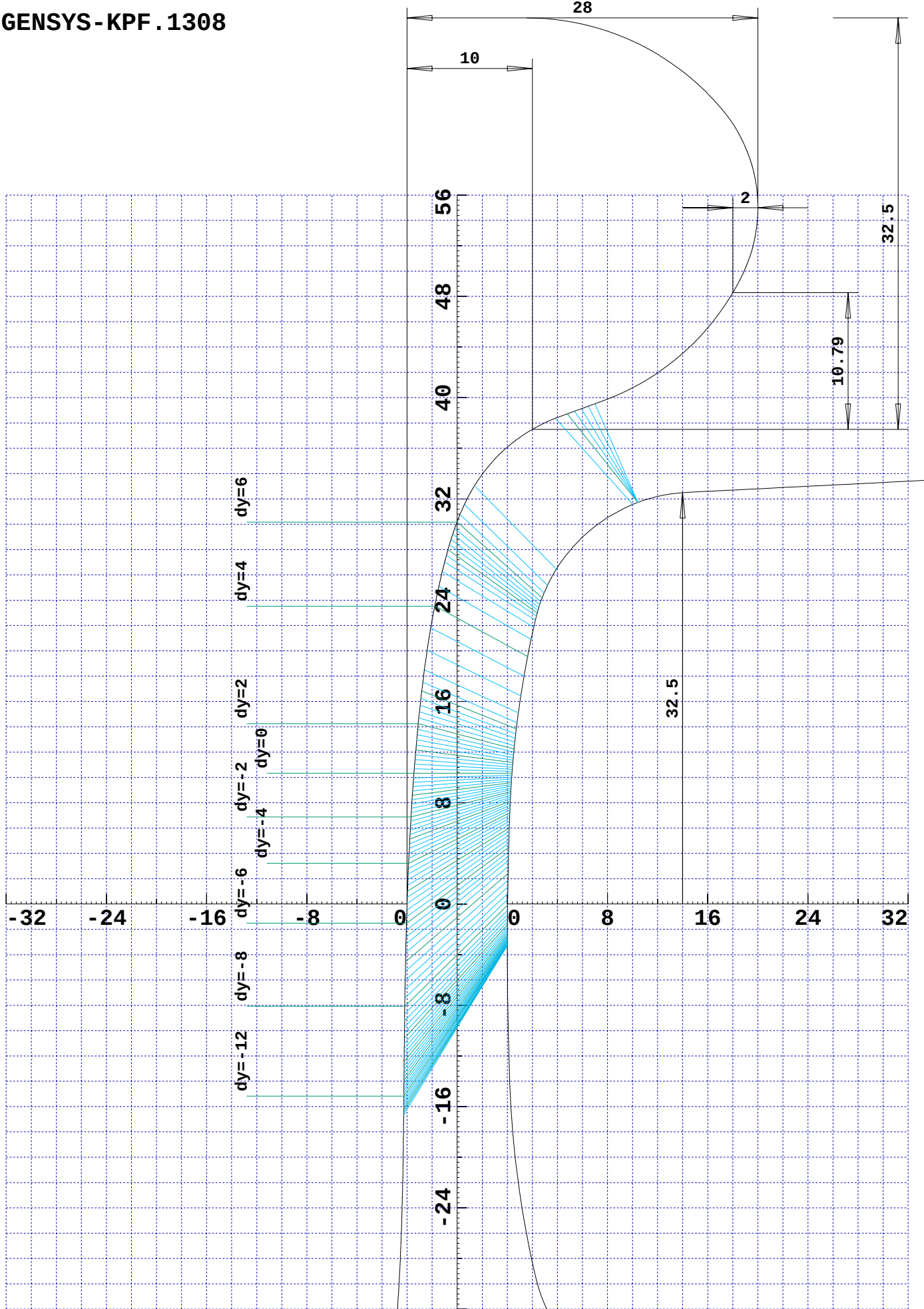


Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel

Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.sho

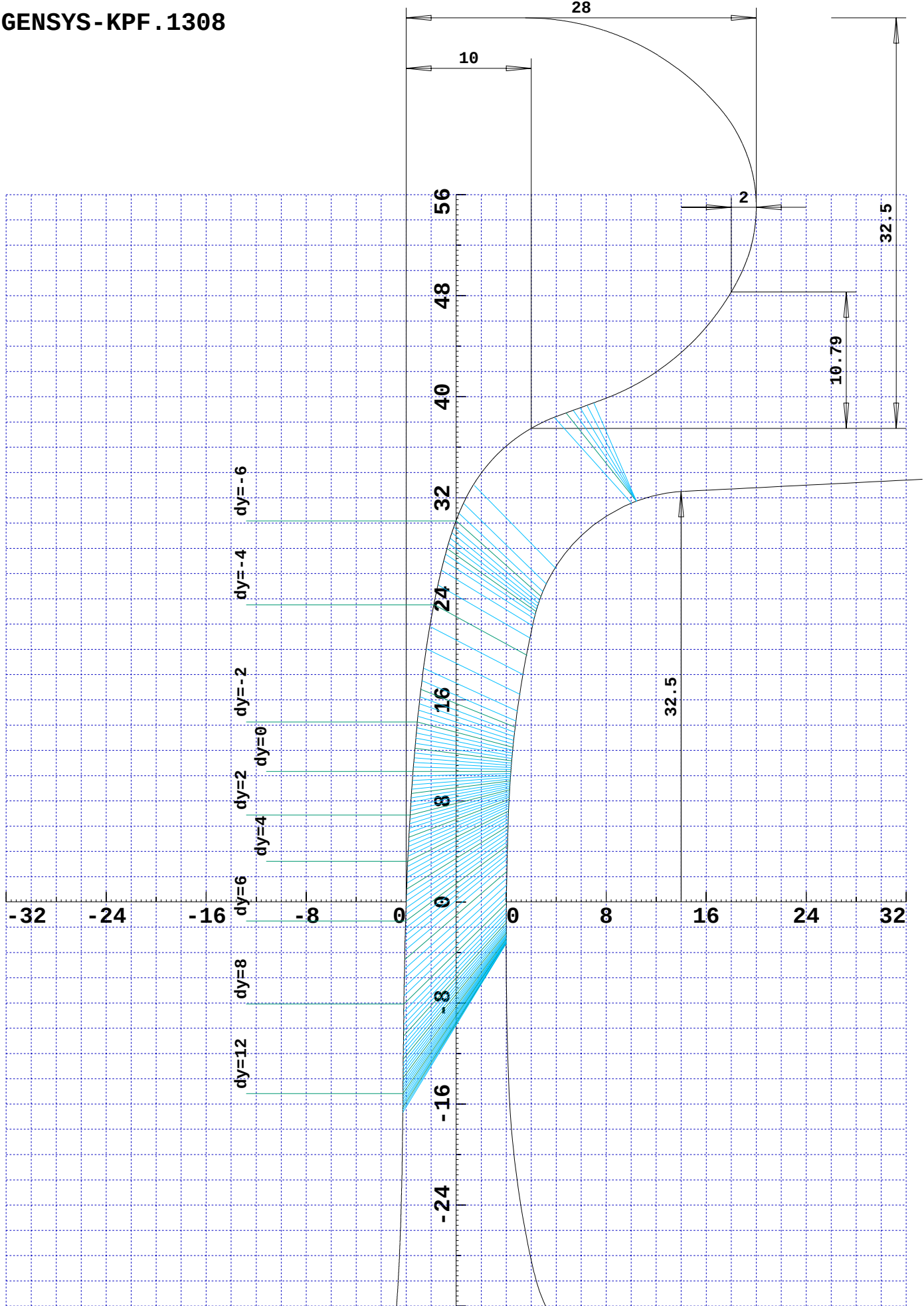
Wprof_lat_shift= 0 Gauge= 1425-1441

Contact Pressure



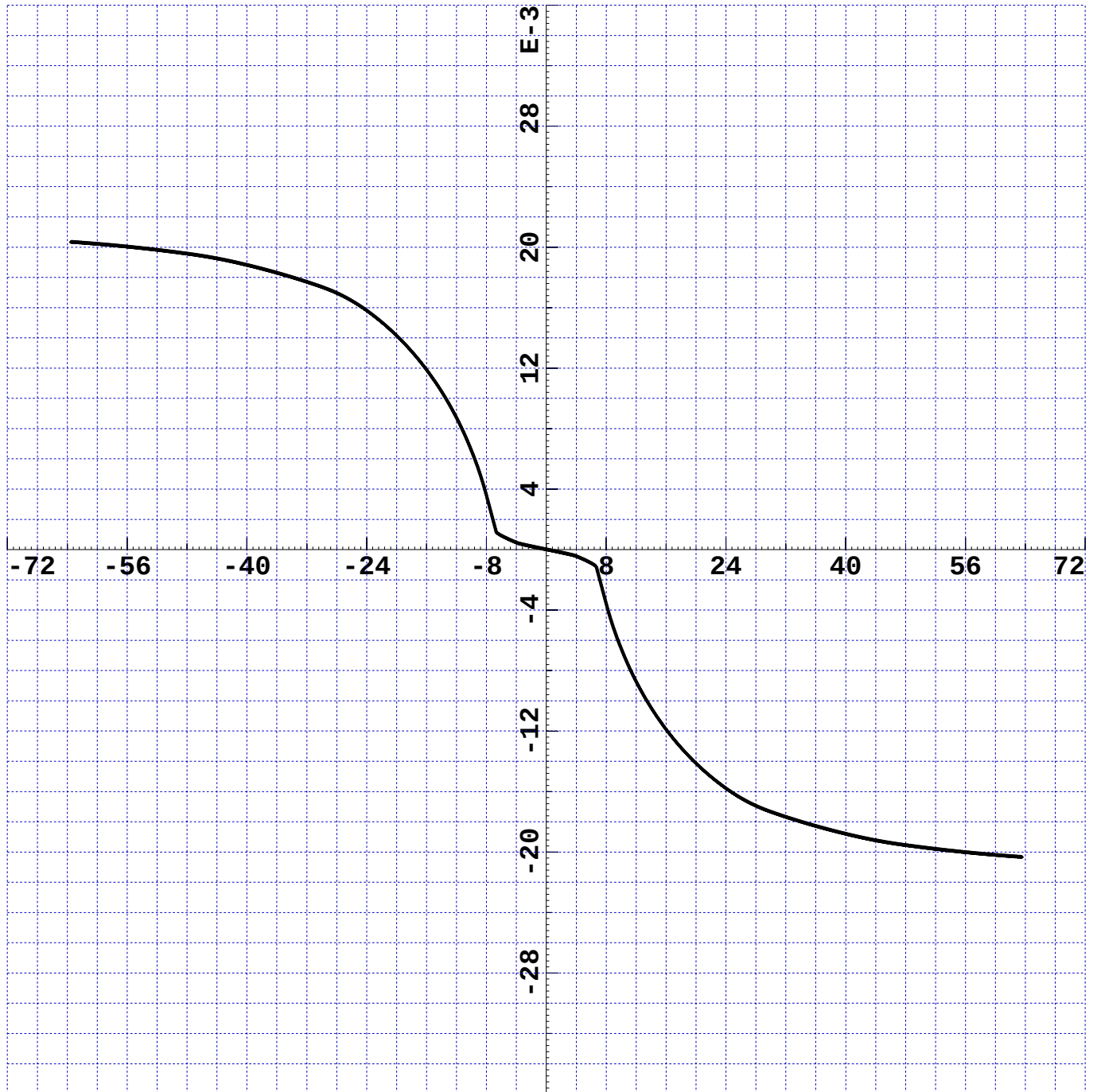
Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel CONNr
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029



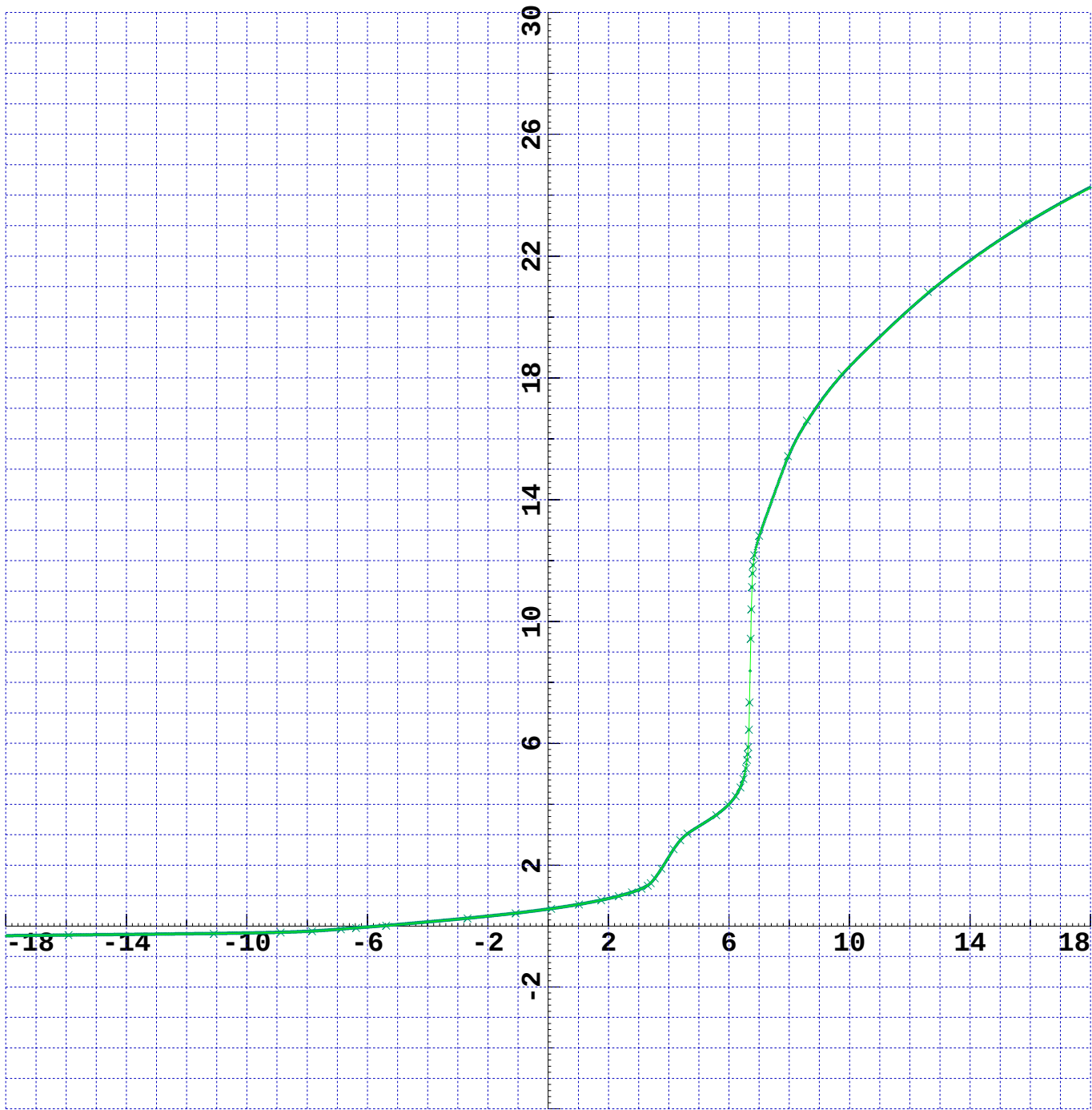
CONN1

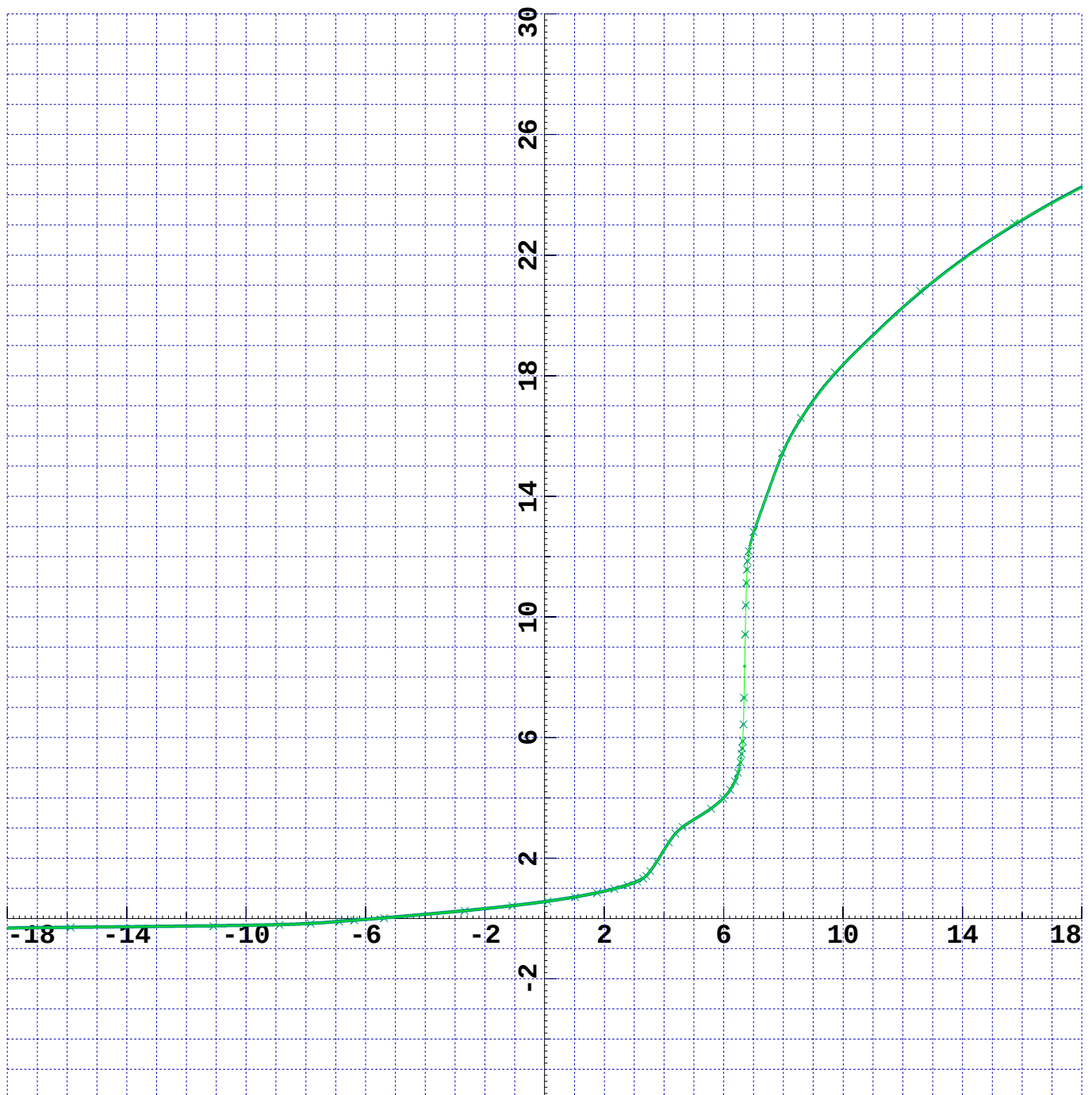
Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel **Flaxl**
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029

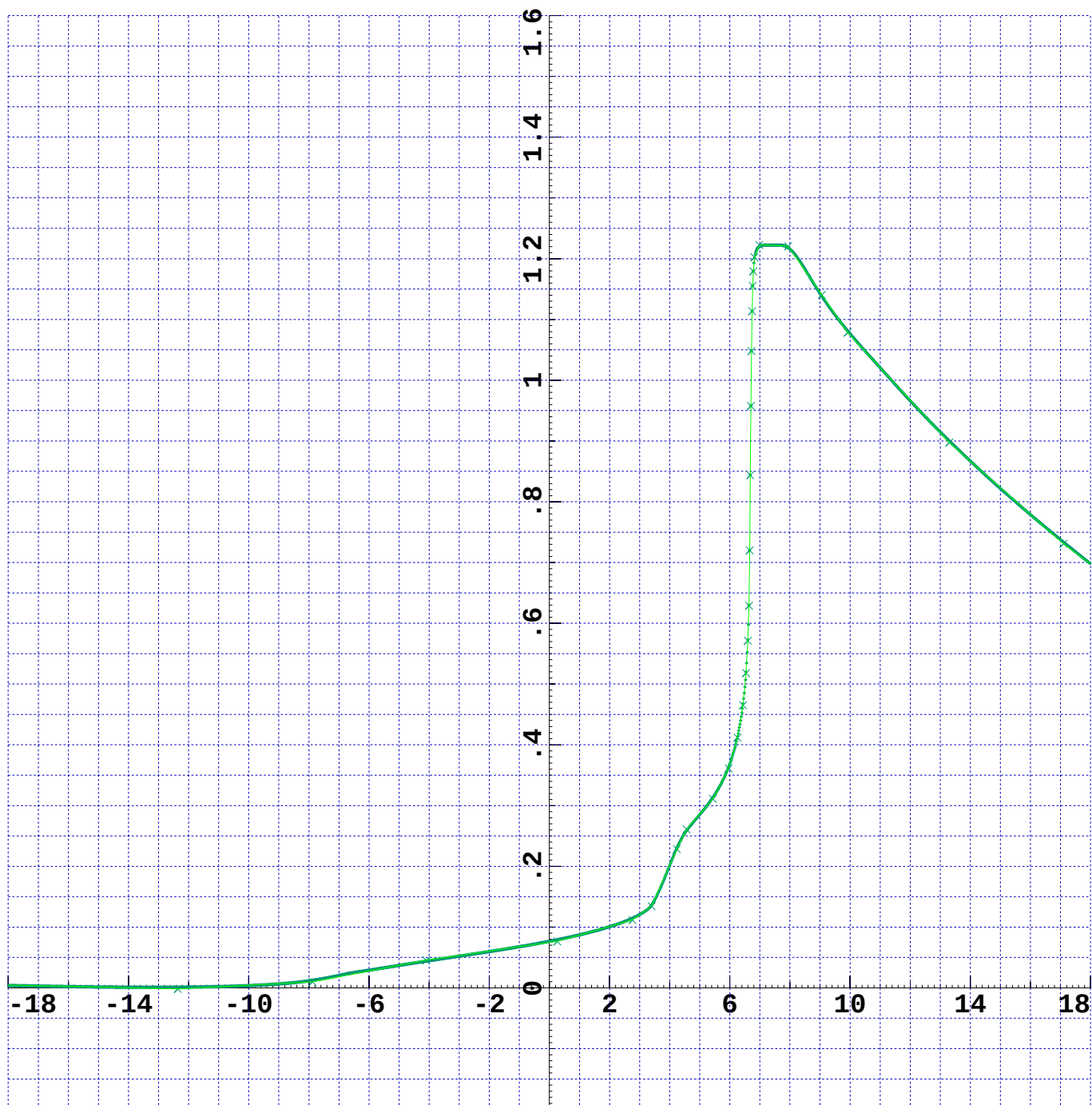




Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

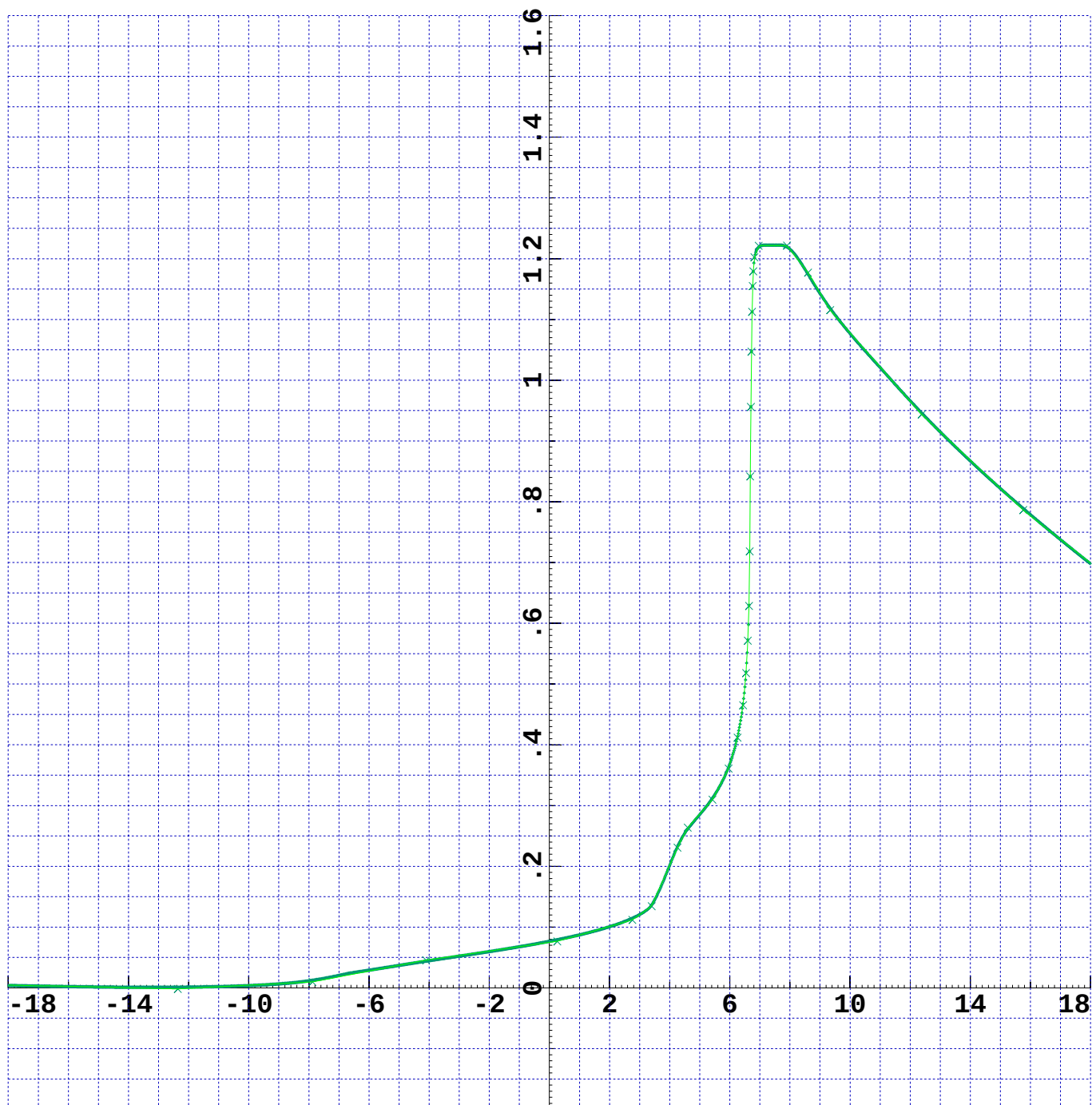
DRFN1

Ident: kpfr_029



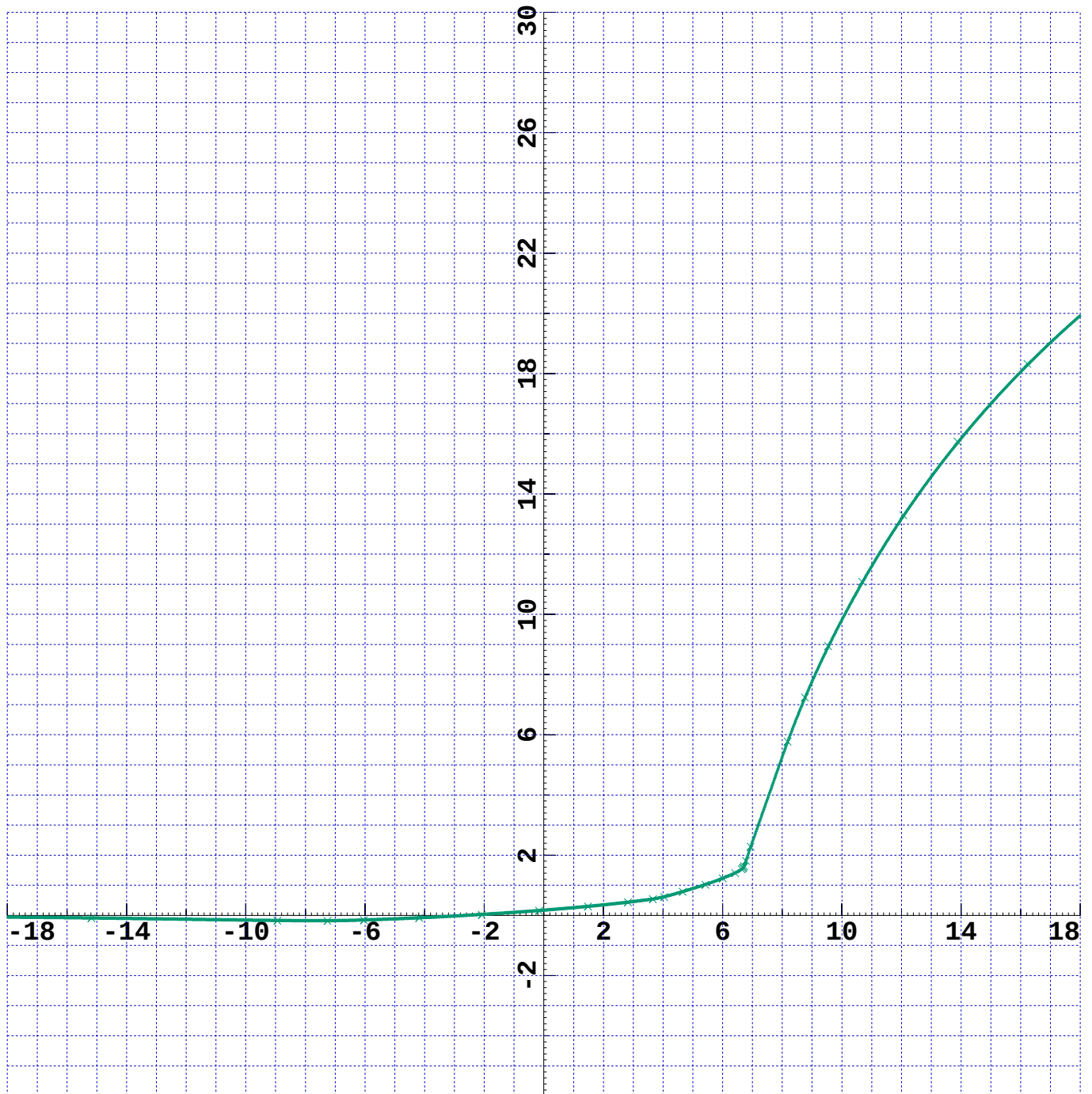
Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel GAMFNr
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
Wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel GAMFN1
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
Wprof_lat_shift= 0 Gauge= 1425-1441

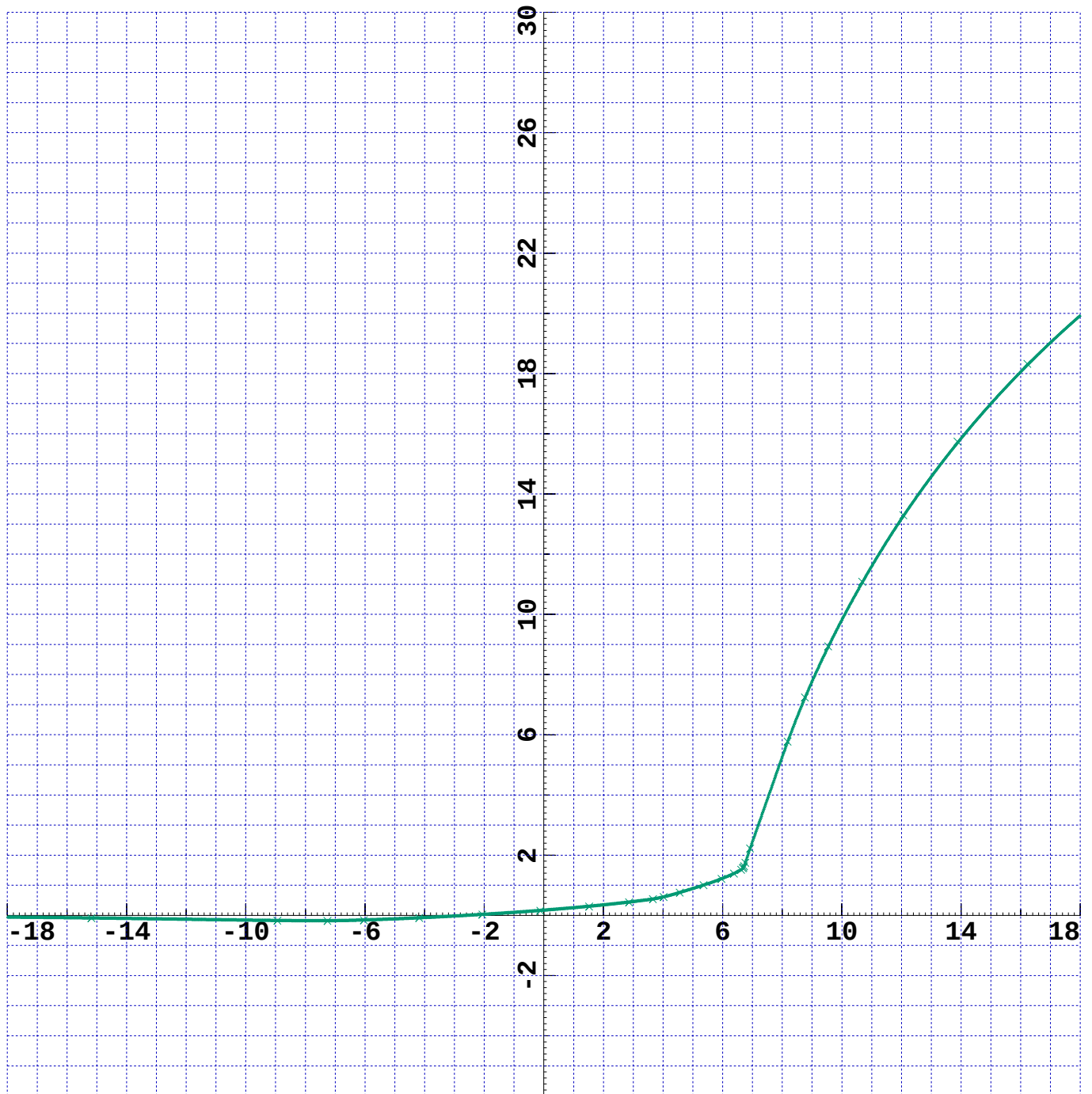
Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZFNr

Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZFN1

Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

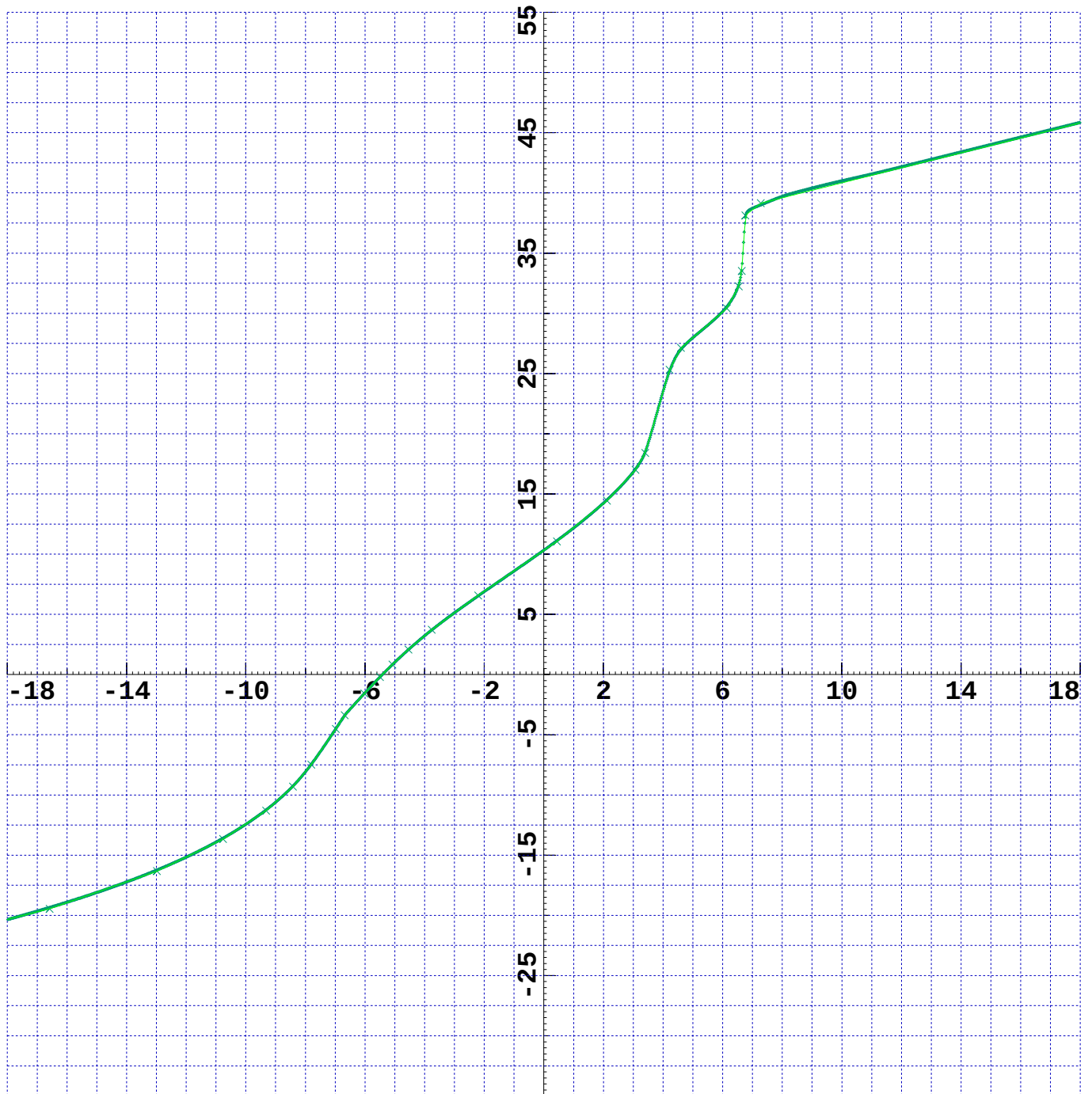
ROFNr

Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel ROFN1
 Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
 Wprof_lat_shift= 0 Gauge= 1425-1441

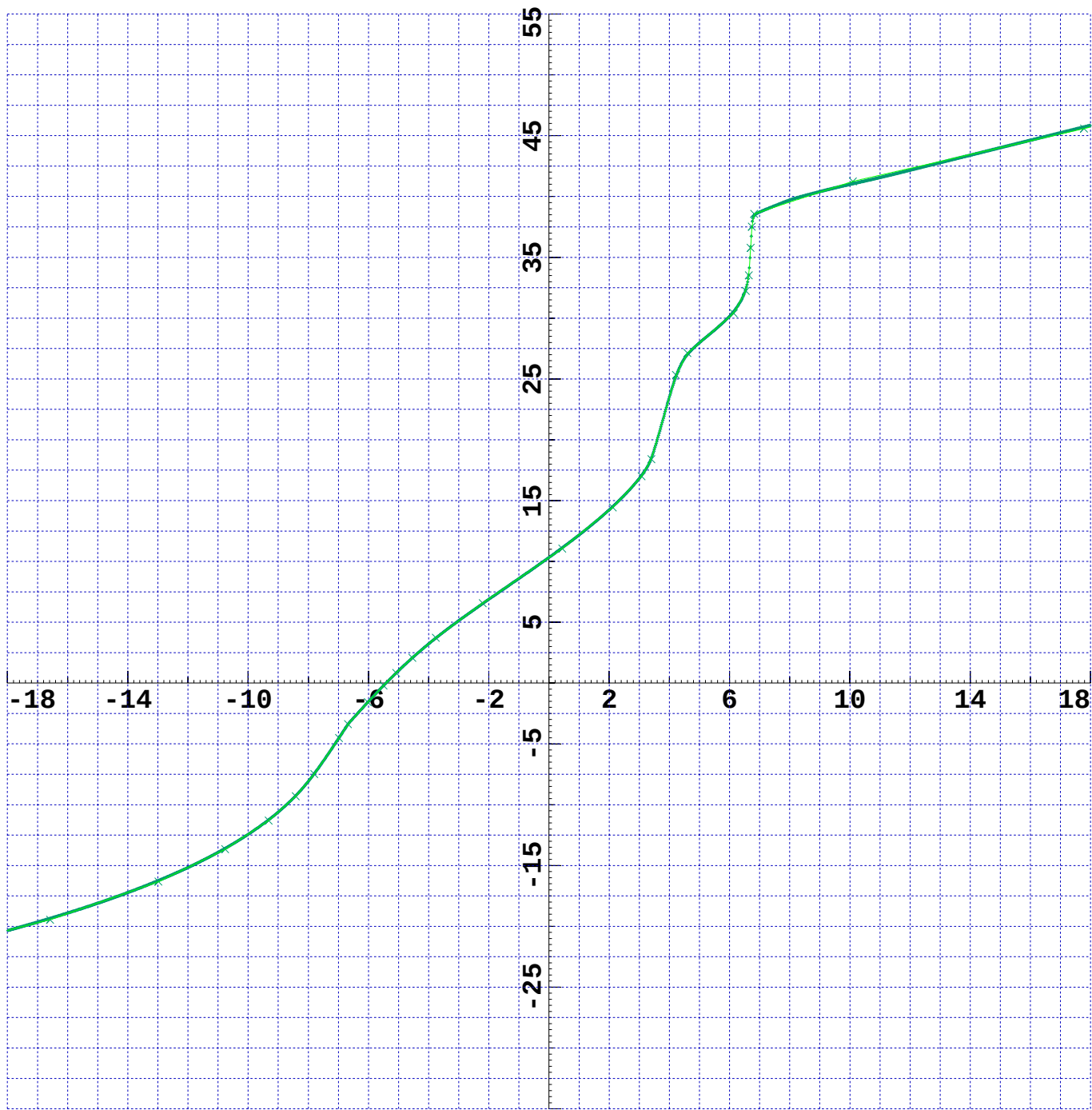
Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
Wprof_lat_shift= 0 Gauge= 1425-1441

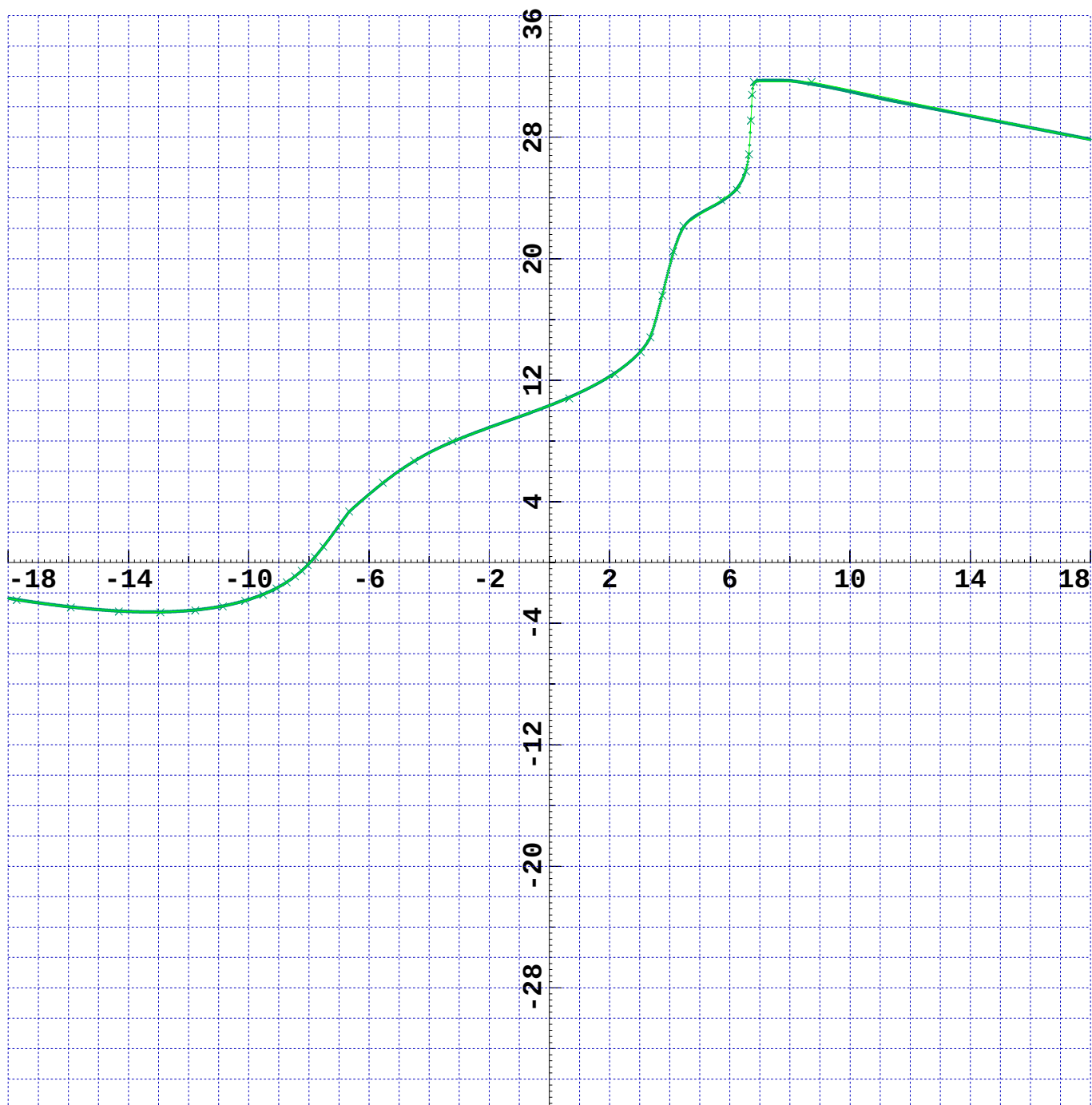
POSWr

Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel POSW1
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
Wprof_lat_shift= 0 Gauge= 1425-1441

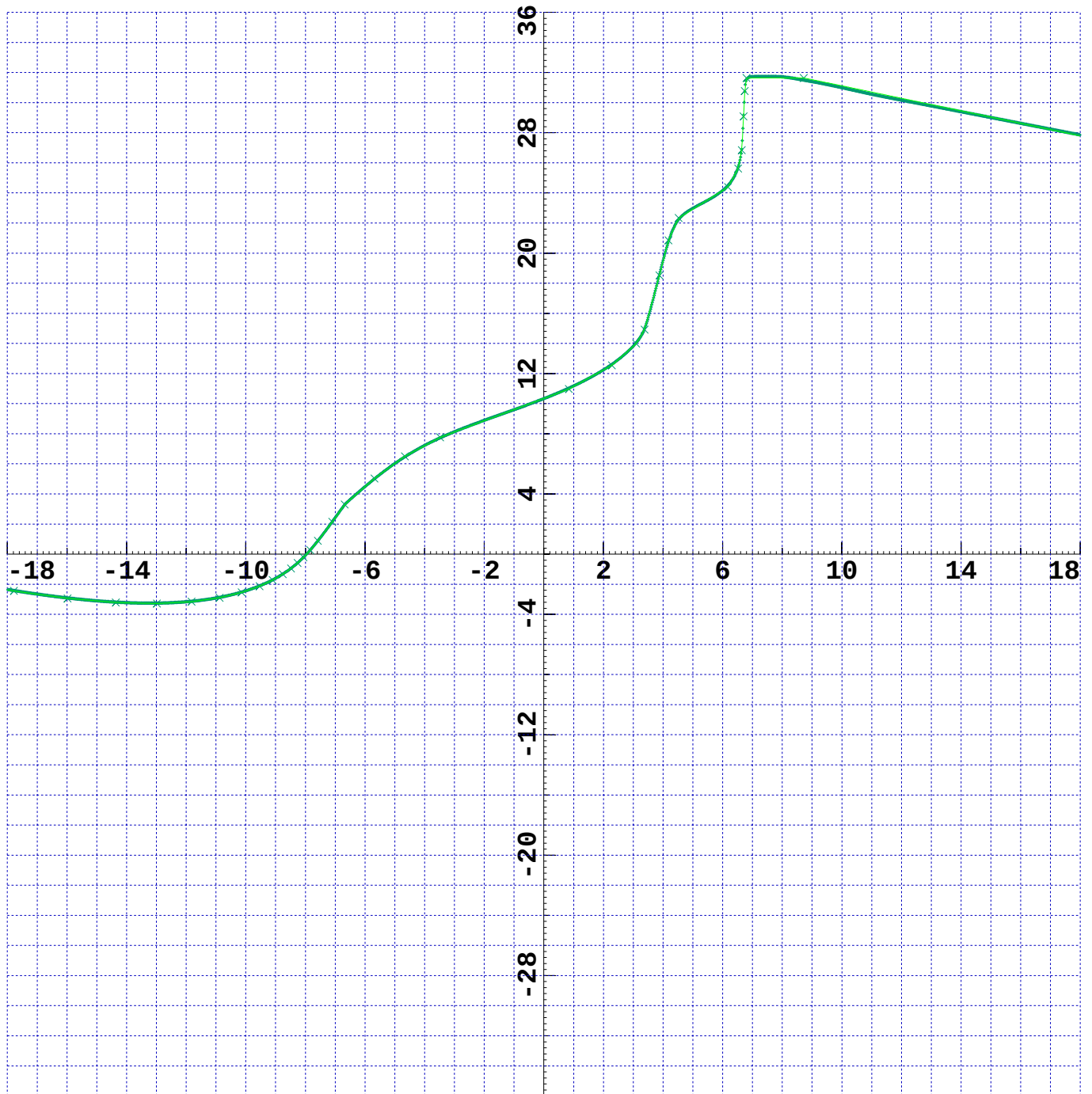
Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

POSRR

Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
Wprof_lat_shift= 0 Gauge= 1425-1441

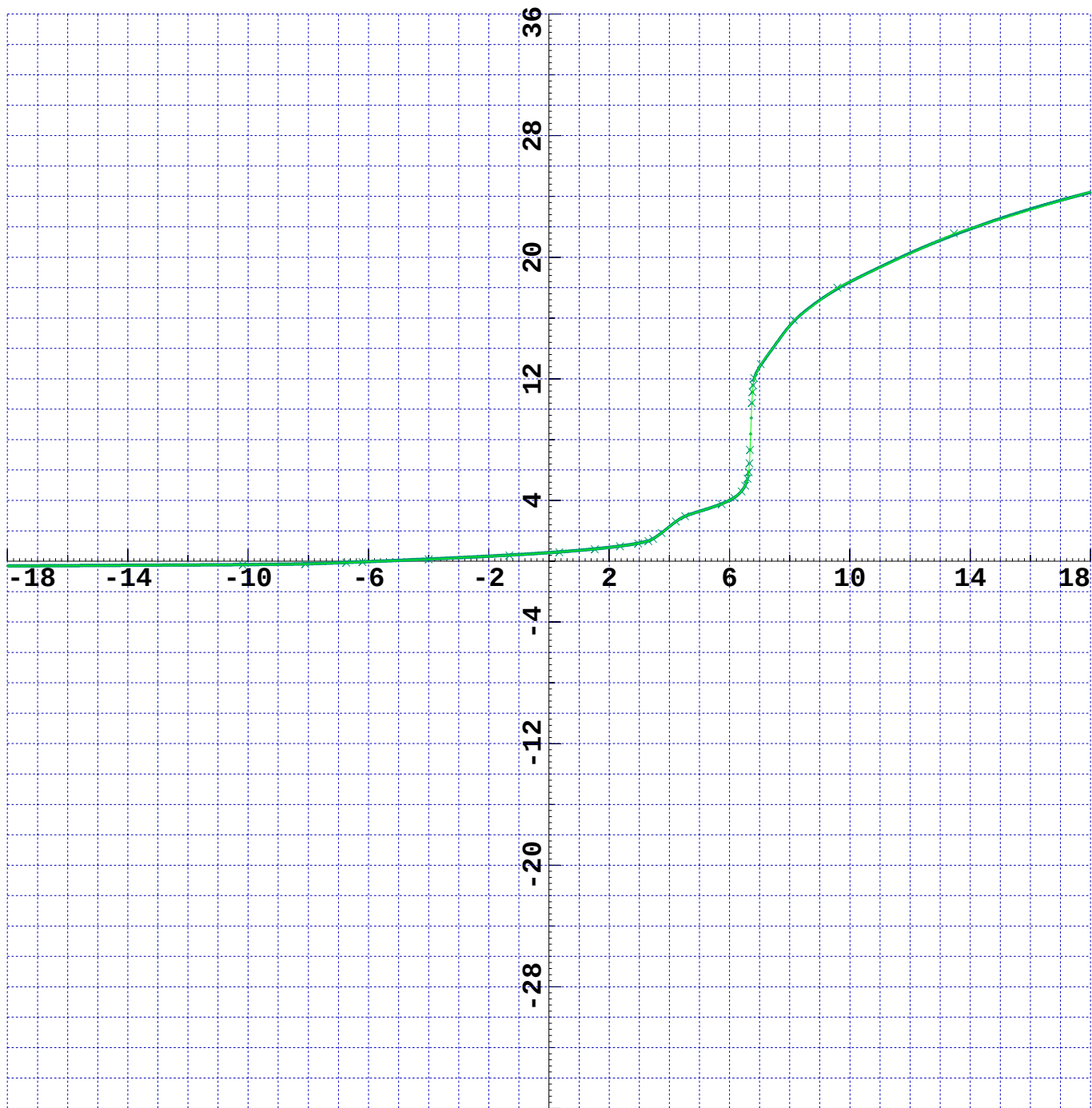
POSRL

Ident: kpfr_029



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel ZWr
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZW1

Ident: kpfr_029



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZRr

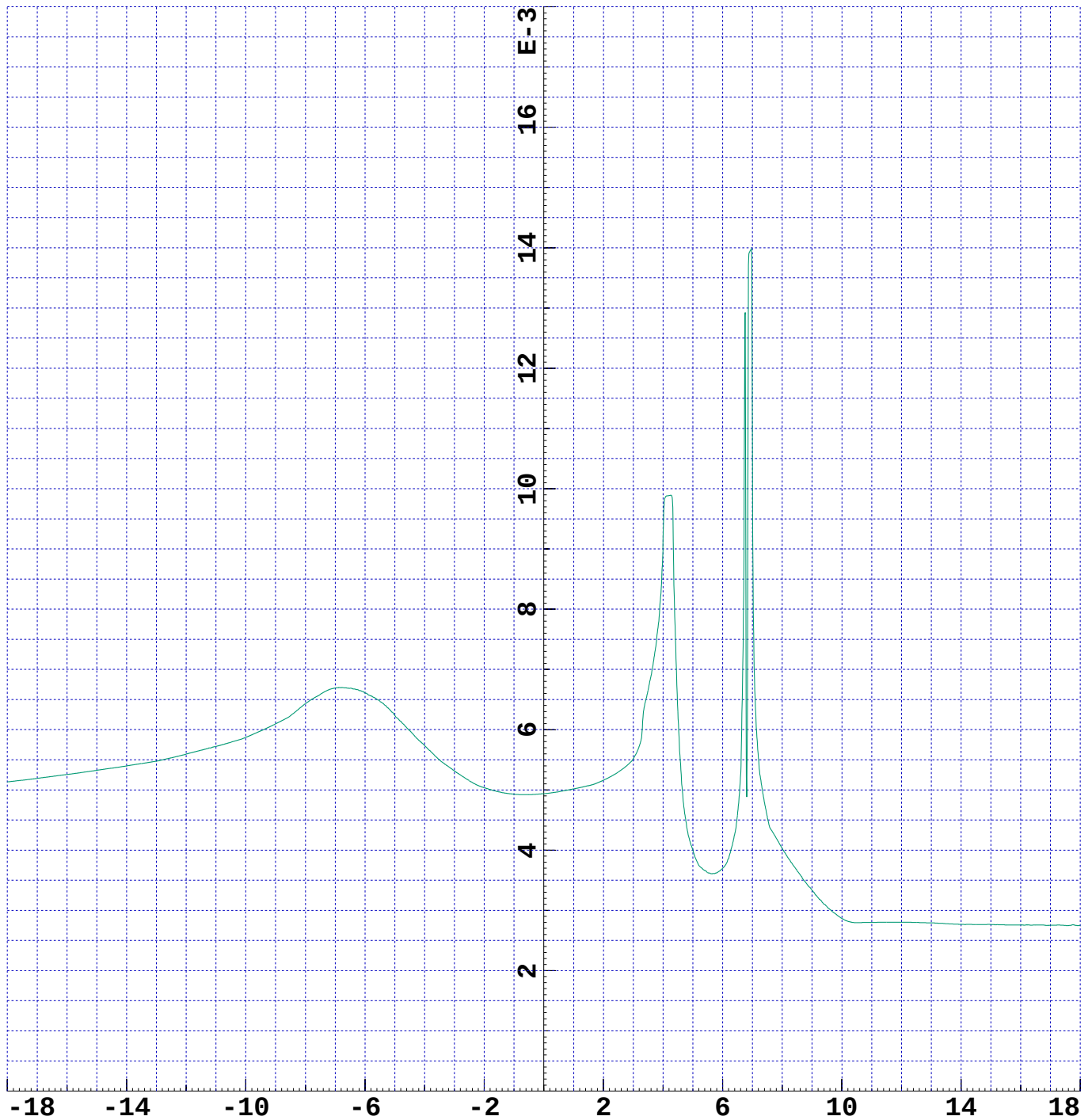
Ident: kpfr_029



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

ZR1

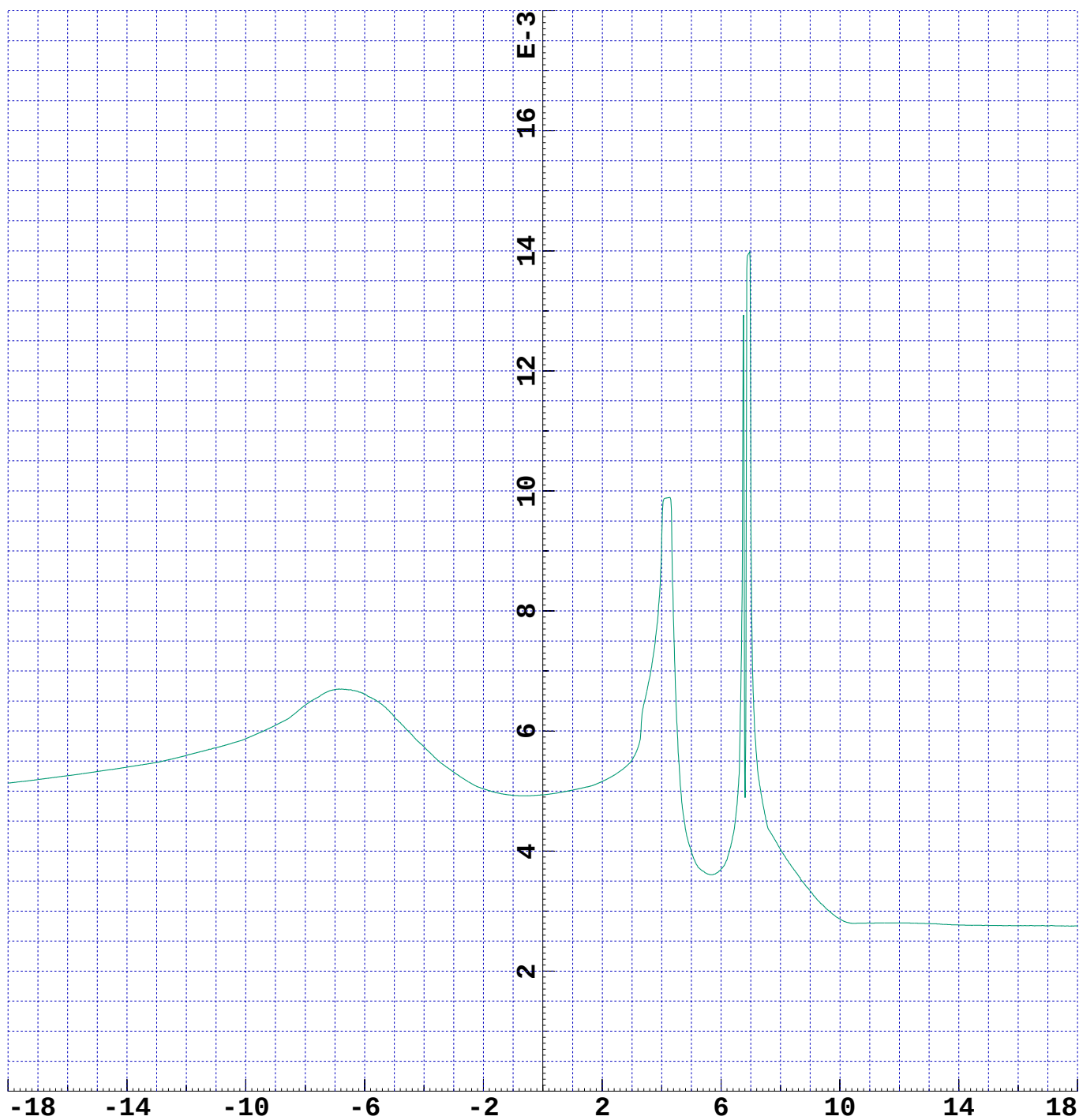
Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

C_r

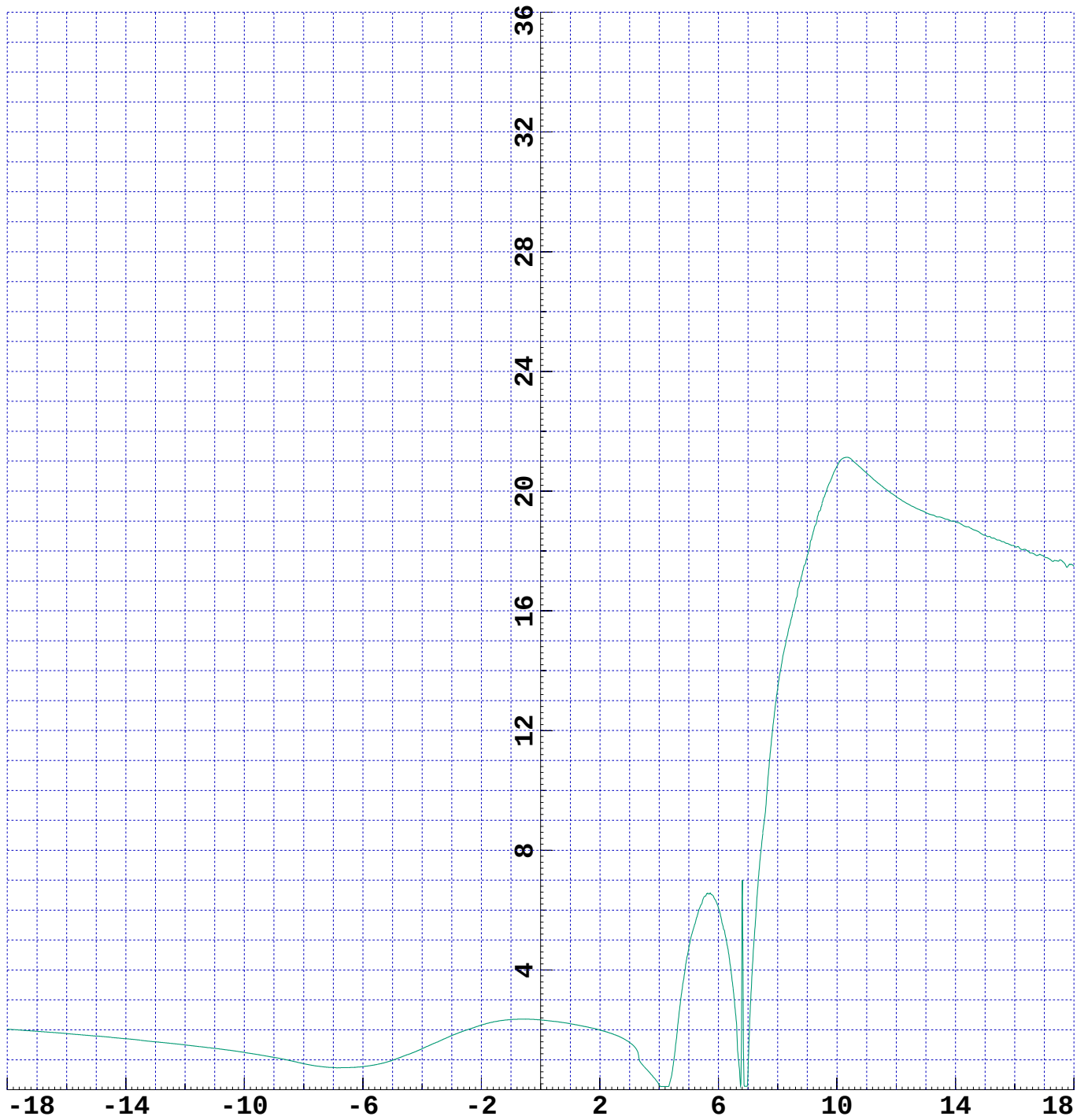
Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
 Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
 wprof_lat_shift= 0 Gauge= 1425-1441

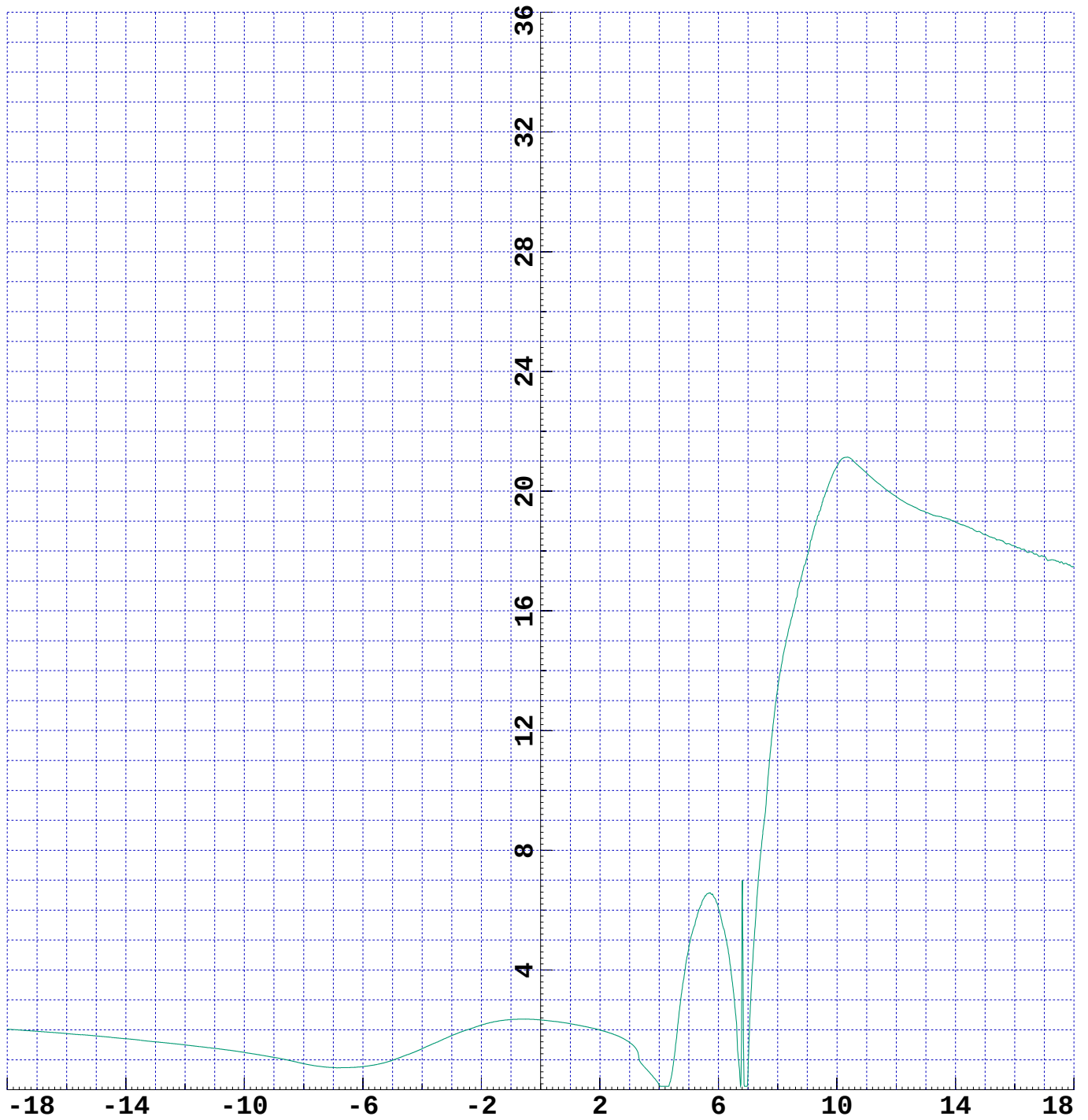
C_1

Ident: kpfr_029



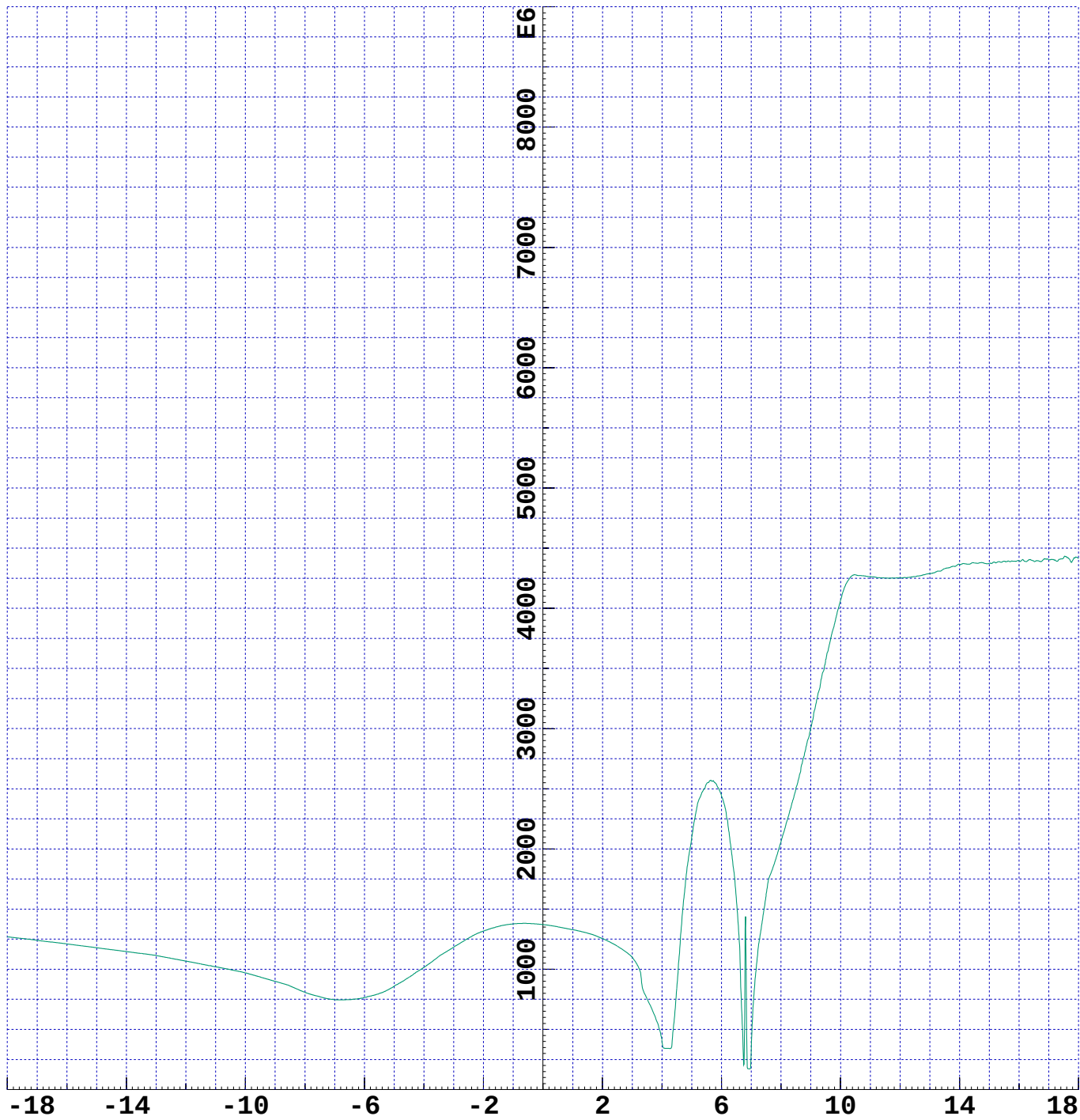
Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel A/B_r
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029



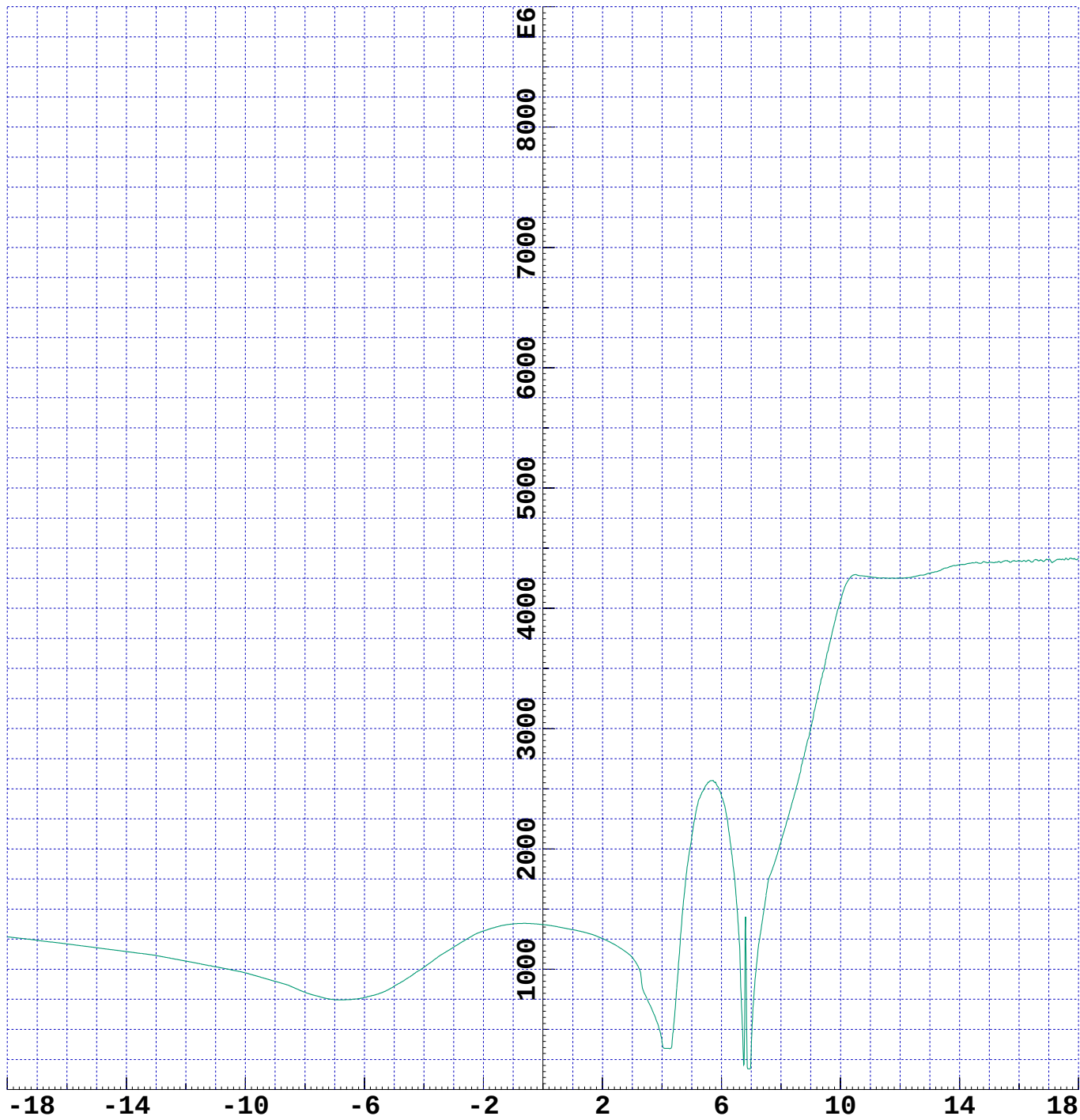
Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel A/B_1
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel SIGMAR
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel **SIGMA1**
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029

Gauge= 1425 —
 1427 —
 1429 —
 1431 —
 1433 —
 1435 —
 1437 —
 1439 —
 1441 —

Radial Steering Index

× = $\Delta r_E = 3.67$ left curve

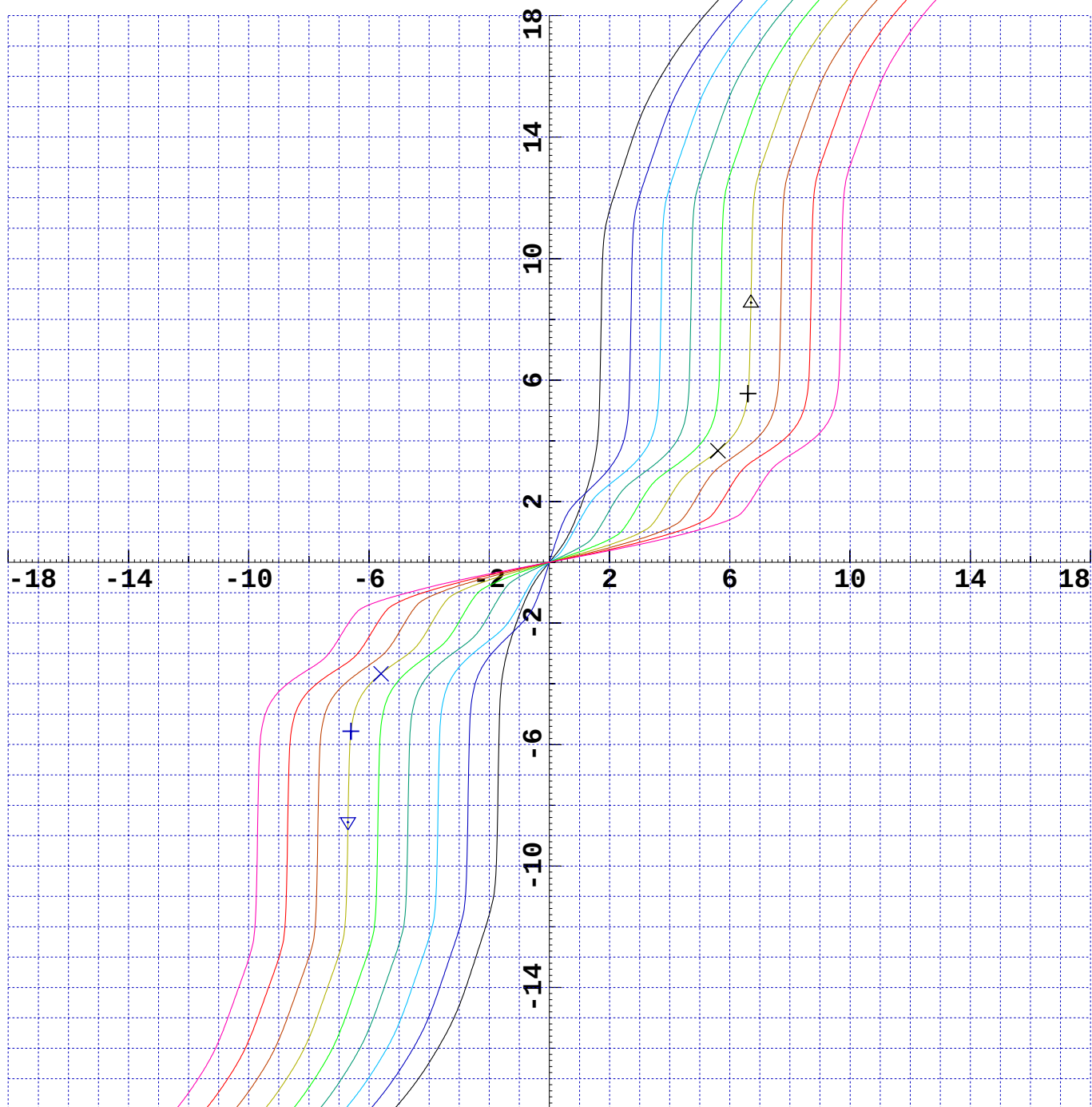
× = $\Delta r_E = 3.67$ right curve

+ = $A0r = 6.60$ 5.55

+ = $A0l = -6.60$ -5.56

possibility of
rolling without
slip

discontinuity
point



△ = 0.1mm right of +discontinuity
 ∇ = 0.1mm left of -discontinuity

Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel

Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail

wprof_lat_shift=0 Gauge= 1425-1441

rr-rl

Ident: kpfr_029

GENSYS-KPF.1308

Delta_Y=

.1

.5

2

3

4

6

Gauge= 1425

—

.602

.634

1.271

1.315

1.284

1.202

1427

—

1.156

1.115

.804

1.094

1.194

1.160

1429

—

.388

.460

.653

.588

.913

1.086

1431

—

.227

.229

.356

.450

.451

.938

1433

—

.169

.170

.184

.257

.340

.577

1435

—

.136

.137

.143

.153

.205

.302

1437

—

.116

.116

.119

.124

.134

.230

1439

—

.102

.102

.104

.108

.113

.153

1441

—

.093

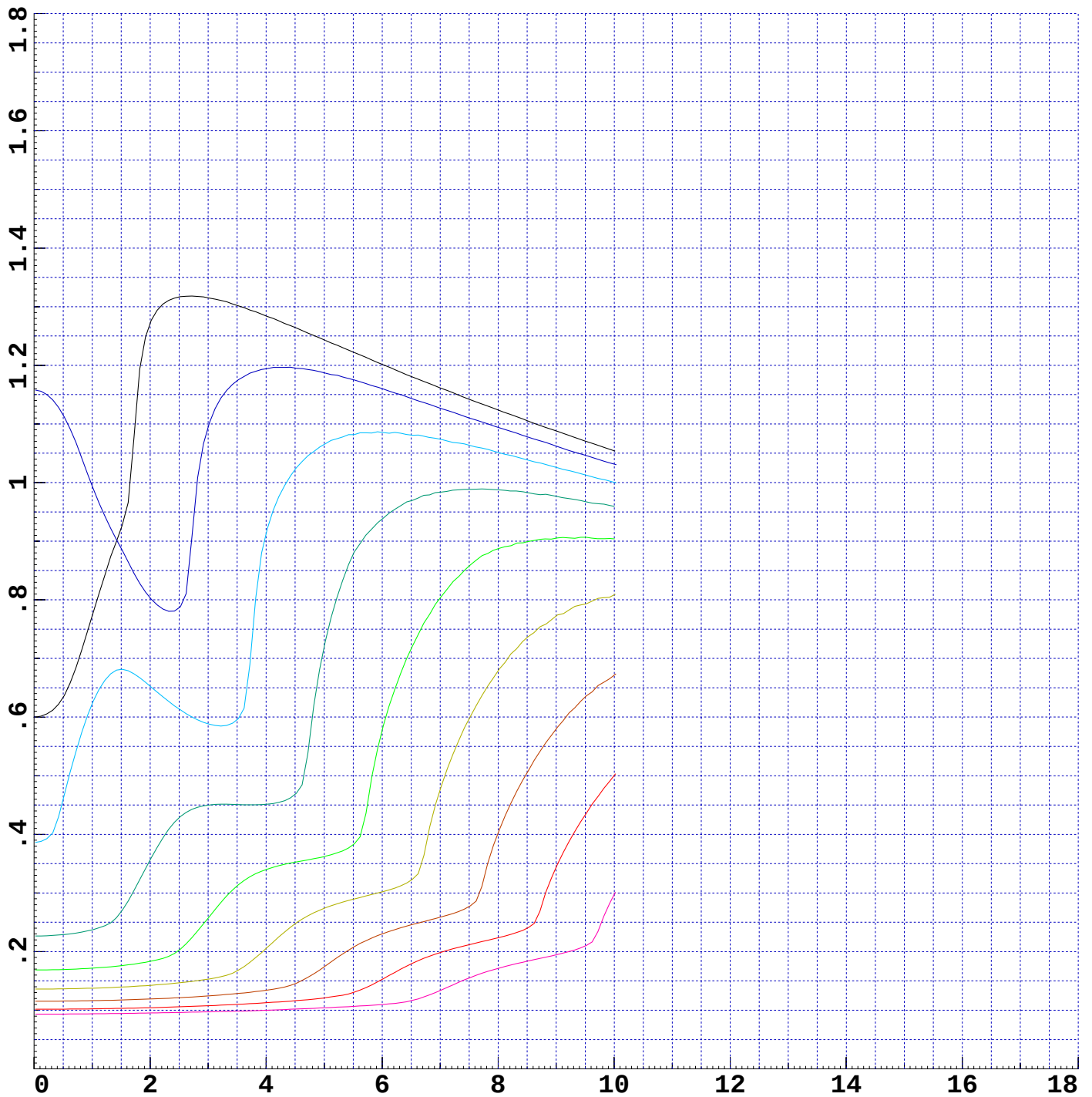
.093

.095

.097

.100

.110



Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel

Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail

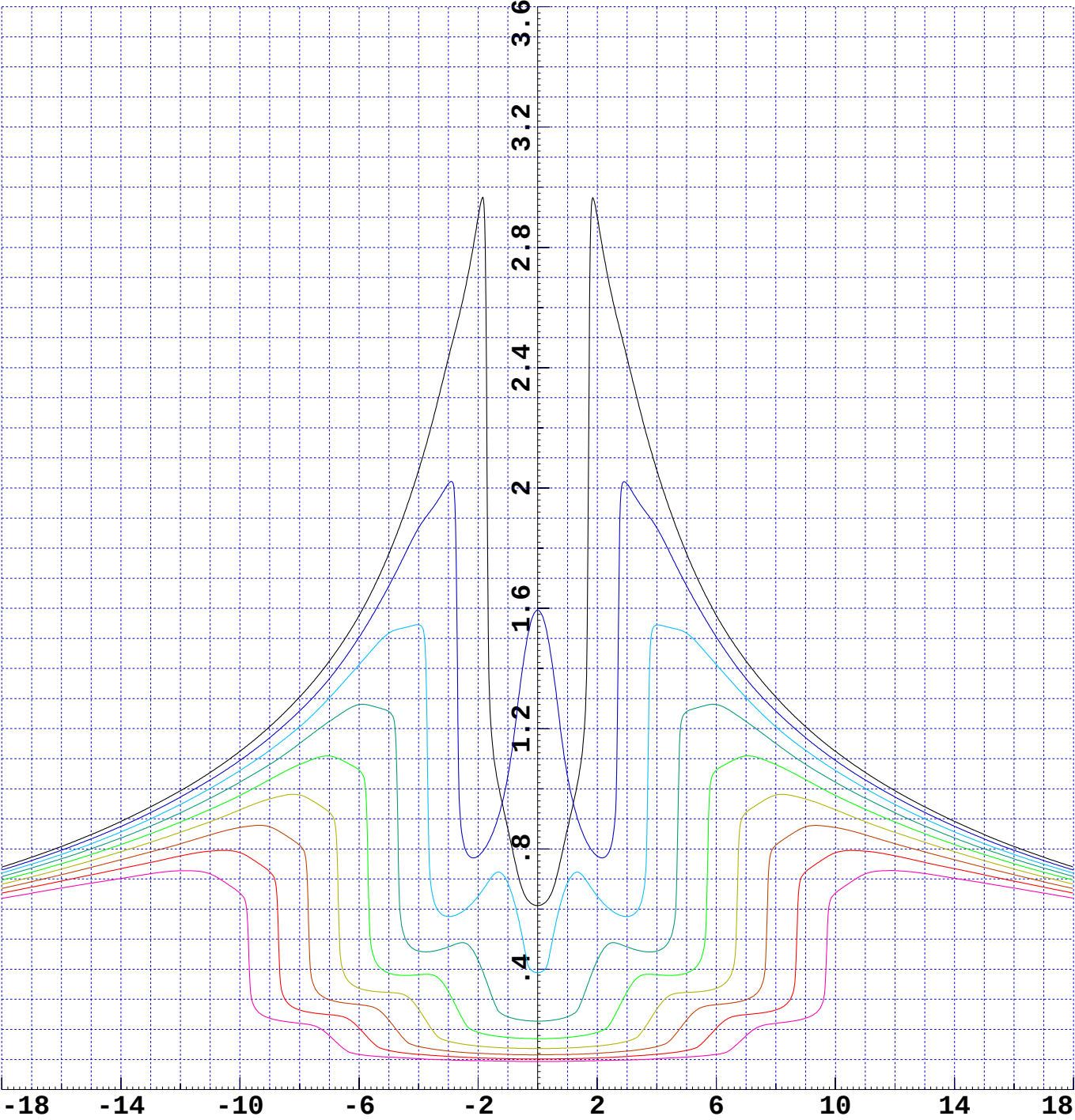
wprof_lat_shift= 0 Gauge= 1425-1441

UIC519

Ident: kpfr_029

GENSYS-KPF.1308

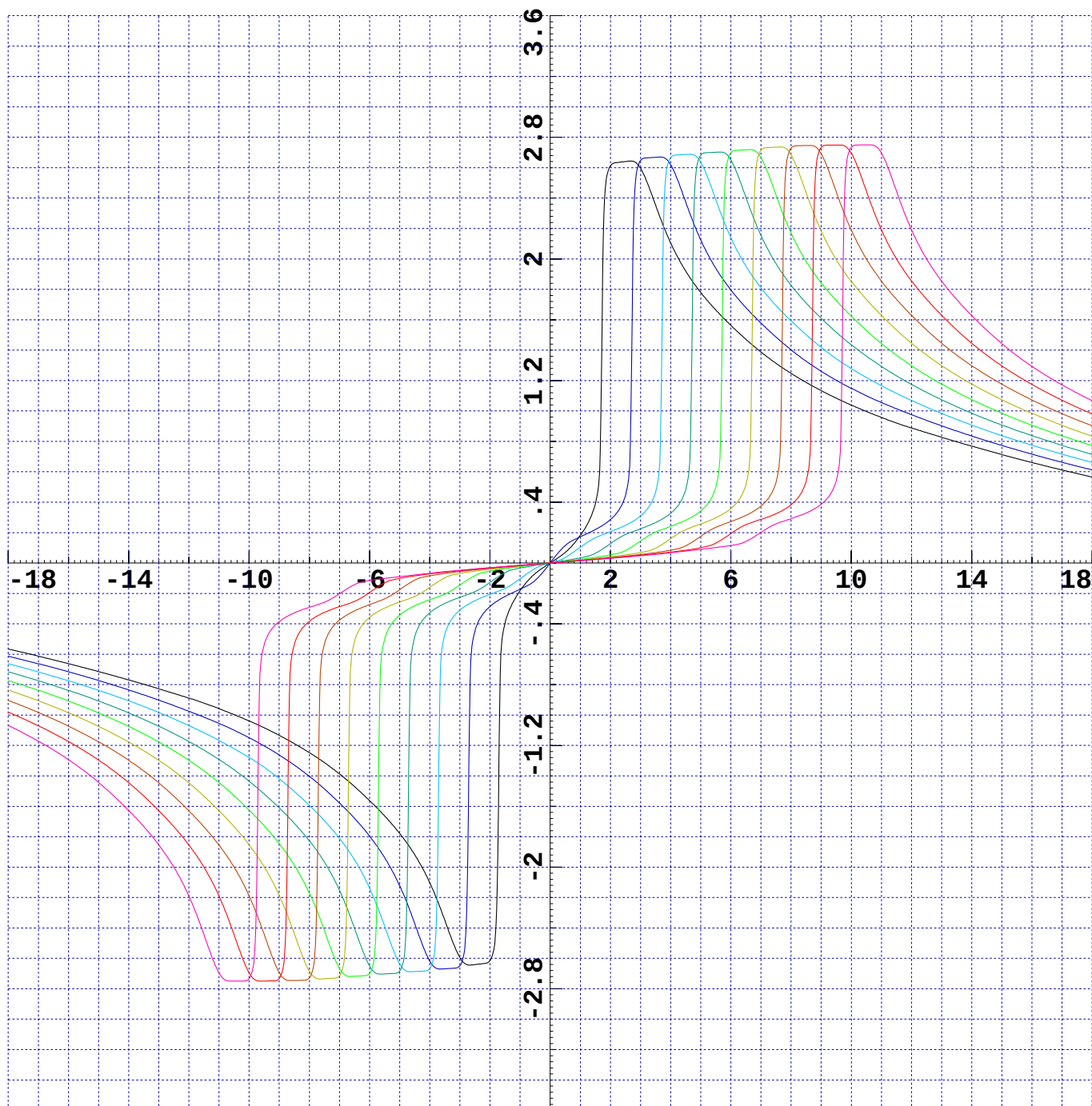
Delta_Y=		.1	.5	2	3	4	6
Gauge= 1425	—	.613	.661	2.900	2.432	2.059	1.576
1427	—	1.586	1.407	.776	2.014	1.867	1.504
1429	—	.390	.499	.643	.575	1.545	1.413
1431	—	.227	.230	.430	.474	.461	1.280
1433	—	.169	.170	.190	.325	.382	1.062
1435	—	.136	.137	.145	.161	.267	.337
1437	—	.116	.116	.121	.128	.143	.282
1439	—	.102	.102	.105	.110	.117	.204
1441	—	.093	.093	.096	.098	.102	.117



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel **lambda**
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

GENSYS-KPF.1308

Gauge= 1425 —
 1427 —
 1429 —
 1431 —
 1433 —
 1435 —
 1437 —
 1439 —
 1441 —

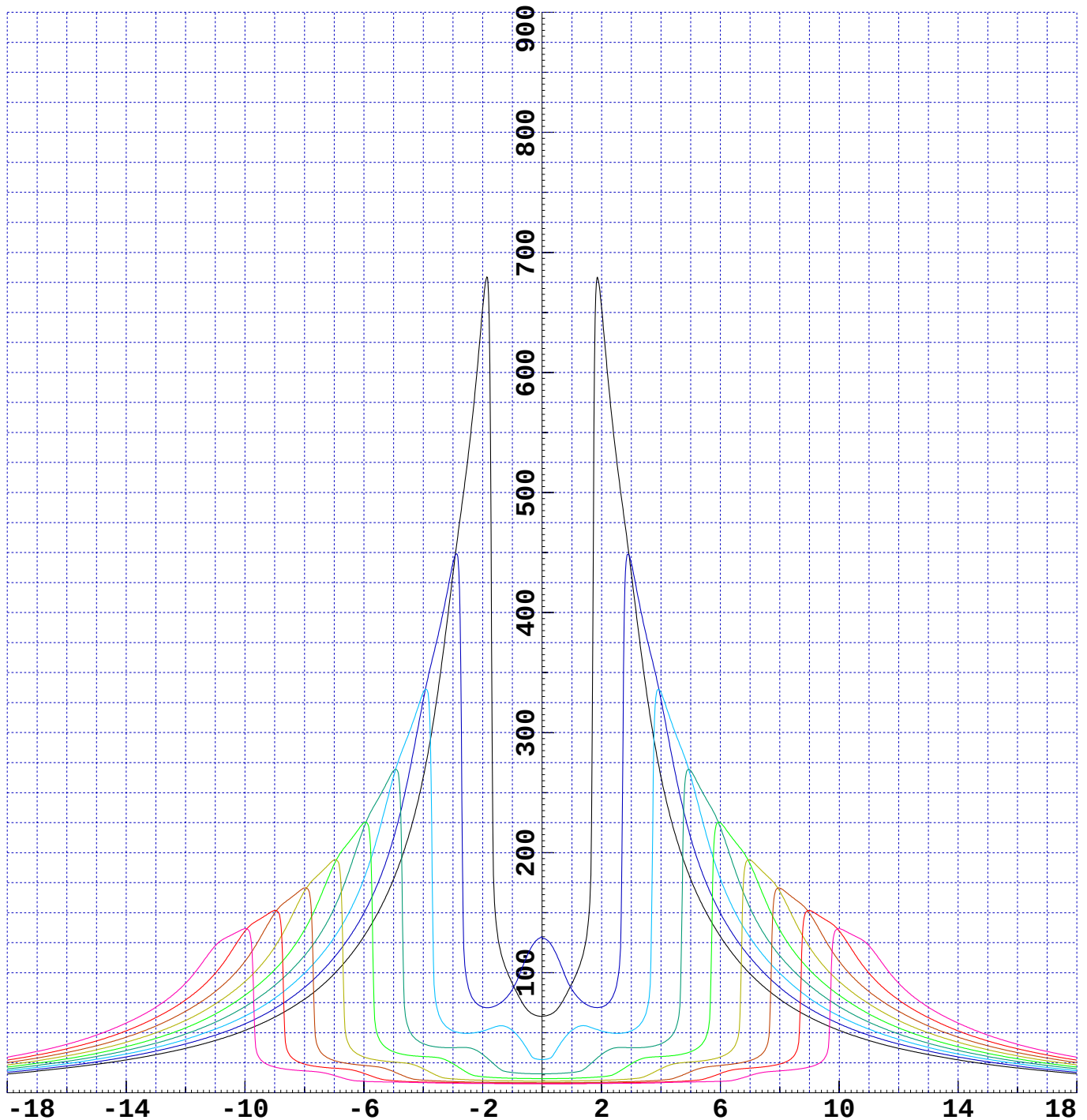


Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel $\tan_{Ga}$
 Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
 Wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029

GENSYS-KPF.1308

Delta_Y=		.1	.5	2	3	4	6
Gauge= 1425	—	63.89	69.28	653.50	432.53	263.01	130.21
1427	—	128.17	114.24	71.44	441.31	327.42	149.64
1429	—	27.79	36.28	51.49	51.66	333.44	178.28
1431	—	15.81	16.04	32.01	37.60	40.88	220.95
1433	—	11.81	11.88	13.37	24.18	30.15	224.86
1435	—	9.69	9.72	10.31	11.51	20.01	29.81
1437	—	8.44	8.46	8.81	9.38	10.54	22.75
1439	—	7.73	7.75	8.01	8.41	8.99	16.11
1441	—	7.43	7.44	7.71	7.95	8.37	9.57

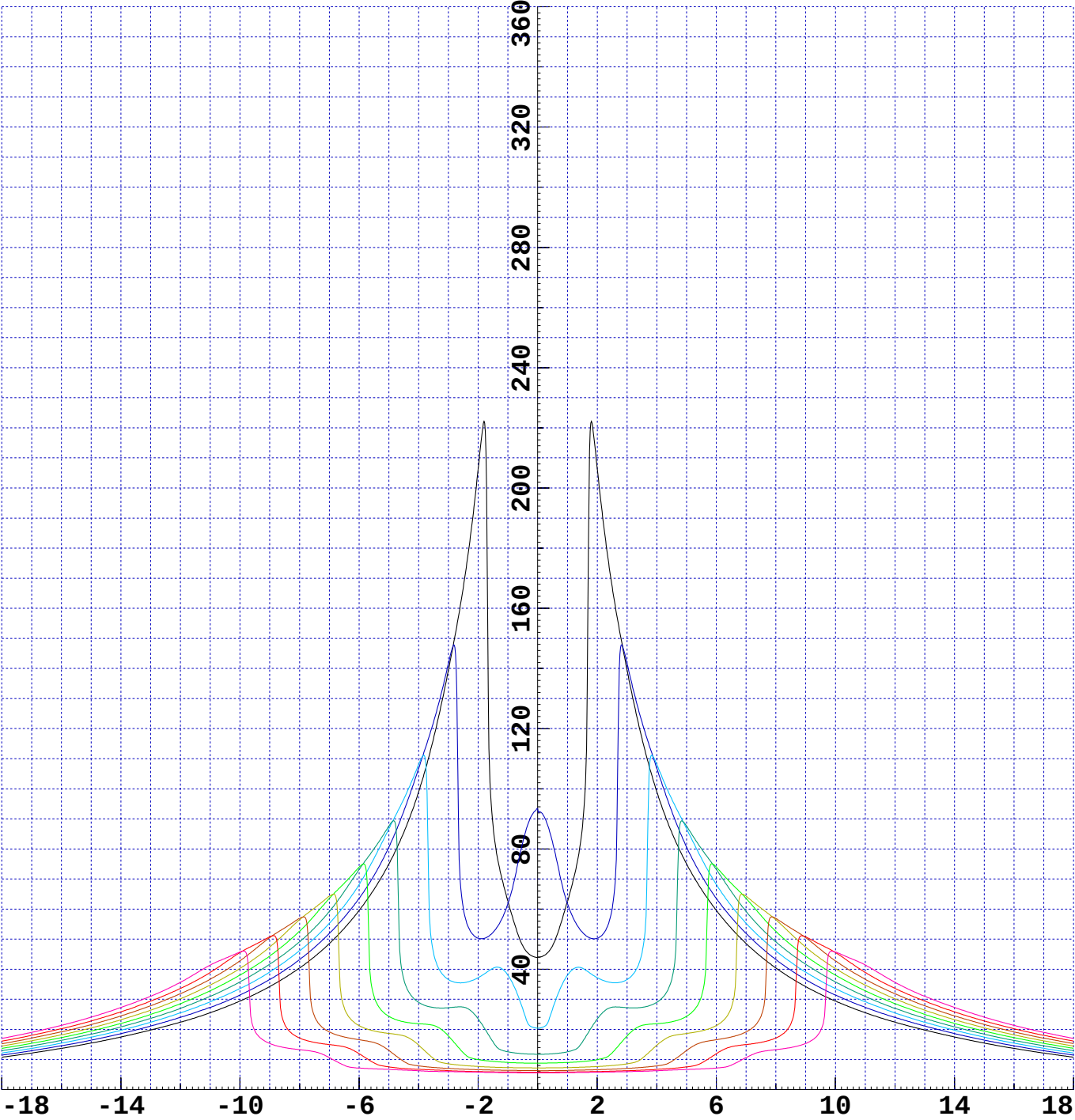


Left wheel: S1002t32.5.wheel Right wheel: S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail KAPPA
wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029

GENSYS-KPF.1308

Delta_Y=		.1	.5	2	3	4	6
Gauge= 1425	—	44.12	47.79	206.22	139.40	98.97	59.57
1427	—	92.26	82.22	50.33	141.66	106.80	63.56
1429	—	20.54	26.77	37.16	36.55	108.08	68.17
1431	—	11.74	11.91	23.52	27.22	29.01	73.20
1433	—	8.79	8.84	9.94	17.80	21.87	73.97
1435	—	7.22	7.24	7.68	8.57	14.75	21.25
1437	—	6.30	6.32	6.58	6.99	7.85	16.56
1439	—	5.78	5.79	5.99	6.28	6.71	11.91
1441	—	5.56	5.57	5.76	5.95	6.26	7.14



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel
Left rail: r_prof/SEC029_l.short.rail Right rail: r_prof/SEC029_r.short.rail
wprof_lat_shift= 0 Gauge= 1425-1441

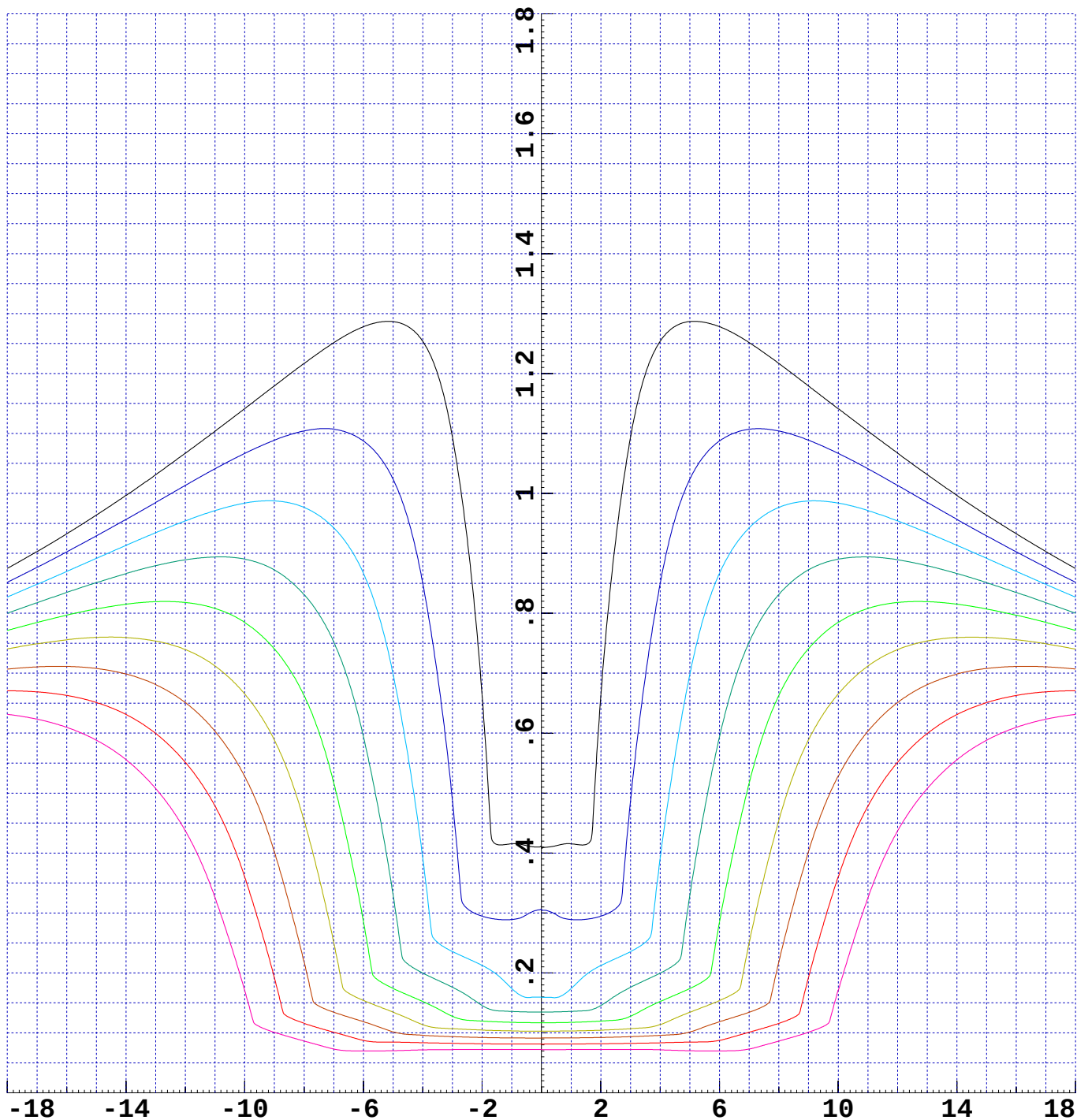
EPS

Ident: kpfr_029

GENSYS-KPF.1308

Delta_Y=

		.1	.5	2	3	4	6
Gauge=	1425	.41	.41	.66	1.09	1.25	1.28
	1427	.30	.30	.29	.49	.85	1.09
	1429	.16	.16	.21	.24	.39	.87
	1431	.13	.13	.15	.18	.20	.59
	1433	.12	.12	.12	.13	.15	.29
	1435	.10	.10	.10	.11	.11	.15
	1437	.09	.09	.09	.09	.10	.12
	1439	.08	.08	.08	.08	.08	.09
	1441	.07	.07	.07	.07	.07	.07



Left wheel:S1002t32.5.wheel Right wheel:S1002t32.5.wheel

Left rail: r_prof/SEC029_l.short.rail

Right rail: r_prof/SEC029_r.short.rail

RollAC

wprof_lat_shift= 0 Gauge= 1425-1441

Ident: kpfr_029