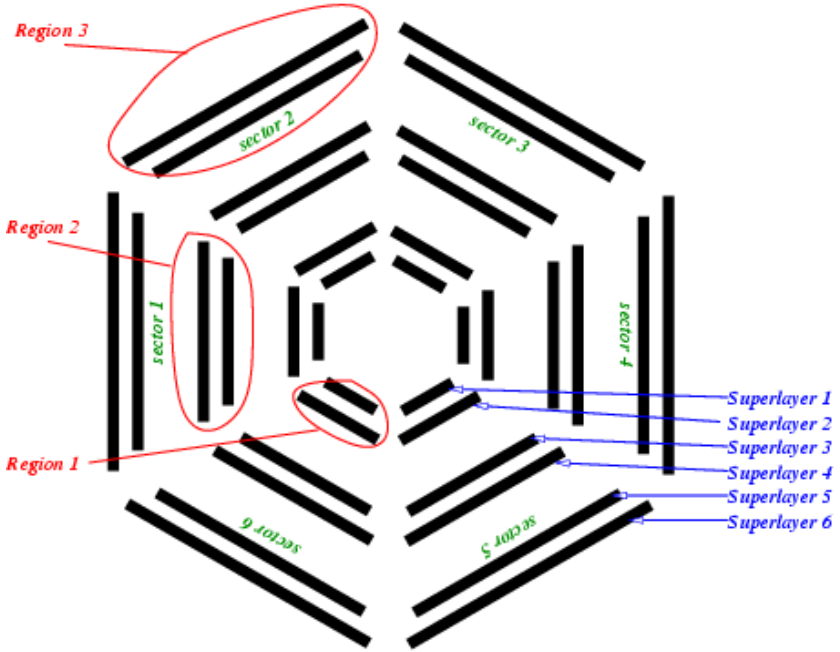
Drift Chamber Calibration Status

Sectors : six azimuthal segments
Three regions of two superlayers each
Superlayer : six layers of sense wires with the exception of superlayer 1 which has only 4 layers



Each superlayer of each sector is calibrated separately
For a total of 36 parameters

FITDOCA – (Distance of Closest Approach)
The distance from the fitted track to the sense wire

CALCDOCA – calculated distance from the sense wire to the track

RESI = abs(FITDOCA) – abs(CALCDOCA)
Also known as time residual

Residuals are the primary means of measuring the resolution of the drift chambers.
Both FITDOCA and CALCDOCA are signed quantities.

List of runs calibrated

Calibrated 11 runs so far

61107 -> 60600 – 61215

61440 -> 61216 – 61482

61489 -> 61483 – 61500

61535 -> 61501 - 61600

61625 -> 61601 – 61682

61695 -> 61683 – 61700

61731 -> 61701 – 61777

61778 -> 61778 – 61782

61819 -> 61791 – 61850

61860 -> 61851 – 61930

61935 -> 61931 - 62000

Constants written to the RunIndex table calib_user.RunIndexeg6_seema

This table also has Lamiaa's latest TOF constants.

Could not calibrate run number 61790! Problem with the BOS files!

61790 -> 61783-61790

Time Residual Means and Sigmas (Total Width)

Run Number 61107

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	17	32	-1	-19	-30	-42	-7
Sec2	21	36	-27	-36	-25	-56	-14
Sec3	16	28	-18	-26	-48	-34	-13
Sec4	17	31	-5	-17	-25	-51	-8
Sec5	21	36	-4	-11	-28	-26	-2
Sec6	14	25	-19	-34	-40	-55	-18
avg.	18	32	-12	-24	-33	-44	-10

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	307	350	404	387	460	490	398
Sec2	339	344	414	396	518	577	421
Sec3	331	332	376	466	477	582	418
Sec4	308	325	350	357	422	523	373
Sec5	363	329	365	373	477	504	397
Sec6	422	303	382	446	529	473	416
*avg.	342	330	379	401	478	521	403

Time Residual Means and Sigmas (Total Width)

Run Number 61440

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	16	11	-10	0	-90	-76	-24
Sec2	11	18	-7	-11	-7	-35	-5
Sec3	58	14	5	-3	-2	-36	5
Sec4	19	19	-1	-6	-15	-16	0
Sec5	13	19	-2	-8	-87	-57	-20
Sec6	36	25	-6	-24	-85	-64	-19
avg.	25	18	-3	-9	-48	-47	-10

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	352	301	356	336	452	480	372
Sec2	361	308	373	351	450	518	387
Sec3	408	287	386	482	442	516	405
Sec4	287	301	357	347	408	469	348
Sec5	373	320	383	389	468	487	389
Sec6	396	287	369	430	533	456	398
*avg.	354	300	367	387	457	486	382

Time Residual Means and Sigmas (Total Width)

Run Number 61489

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	16	23	0	-13	-23	-13	-1
Sec2	26	35	-24	-32	-31	-36	-10
Sec3	19	29	-16	-21	-41	-13	-7
Sec4	21	29	-2	-15	-37	-8	-2
Sec5	27	36	-8	-10	-32	-31	-3
Sec6	57	28	-19	-29	-28	-36	-4
avg.	28	30	-11	-20	-32	-23	-4

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	332	356	424	412	479	505	417
Sec2	363	352	434	409	532	609	442
Sec3	347	341	390	492	478	585	430
Sec4	323	330	372	382	428	540	389
Sec5	371	336	397	411	493	518	415
Sec6	428	313	406	452	536	490	429
*avg.	358	336	403	423	488	539	420

Time Residual Means and Sigmas (Total Width)

Run Number 61535

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	15	24	-30	-25	-31	-58	-17
Sec2	22	25	-28	-36	-51	-63	-21
Sec3	22	28	-19	-30	-22	-34	-9
Sec4	16	32	-14	-20	-15	-55	-9
Sec5	16	24	-9	-16	-85	-56	-21
Sec6	36	21	-24	-38	-64	-23	-15
avg.	21	26	-21	-27	-45	-48	-15

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	350	372	427	421	497	526	429
Sec2	387	365	452	428	549	615	459
Sec3	356	357	397	517	497	601	447
Sec4	343	357	387	396	450	545	406
Sec5	387	343	401	421	516	536	429
Sec6	438	330	419	479	566	509	447
*avg.	374	353	413	440	510	554	436

Time Residual Means and Sigmas (Total Width)

Run Number 61625

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	14	19	-32	-33	-26	-48	-17
Sec2	12	12	-28	-31	-41	-45	-20
Sec3	25	14	-13	-27	-20	-23	-7
Sec4	17	34	-9	-15	-5	-30	-1
Sec5	19	26	-8	-17	-66	-46	-15
Sec6	43	21	-18	-34	-43	-38	-11
avg.	22	21	-18	-26	-33	-38	-12

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	342	372	406	437	481	510	423
Sec2	377	357	437	419	530	590	444
Sec3	354	344	390	506	490	583	437
Sec4	334	347	374	388	435	525	394
Sec5	380	345	404	429	499	525	426
Sec6	430	317	406	460	546	498	435
*avg.	367	346	401	436	495	536	426

Time Residual Means and Sigmas (Total Width)

Run Number 61695

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	22	29	-24	-19	-42	-40	-12
Sec2	12	26	-29	-33	-52	-57	-22
Sec3	40	25	-15	-25	-53	-29	-9
Sec4	35	30	-8	-16	-15	-24	0
Sec5	32	34	-6	-15	-71	-39	-10
Sec6	29	27	-18	-35	-55	-51	-17
avg.	28	29	-17	-24	-48	-40	-12

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	327	352	404	389	457	489	402
Sec2	349	342	426	403	514	578	427
Sec3	329	324	372	482	466	557	414
Sec4	319	329	360	364	423	520	379
Sec5	358	322	385	400	488	499	406
Sec6	409	303	392	445	536	474	419
*avg.	347	328	387	412	478	517	407

Time Residual Means and Sigmas (Total Width)

Run Number 61731

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	13	35	-32	-21	-43	-36	-14
Sec2	25	18	-30	-34	-41	-71	-22
Sec3	35	24	-15	-23	-48	-30	-9
Sec4	26	28	-10	-20	-55	-26	-9
Sec5	36	35	-9	-11	-40	-54	-7
Sec6	35	25	-25	-33	-34	-24	-9
avg.	29	28	-20	-24	-43	-40	-12

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	342	371	415	402	476	512	416
Sec2	376	359	445	413	537	597	449
Sec3	351	345	386	510	495	583	435
Sec4	330	340	378	376	448	527	394
Sec5	384	342	397	410	506	526	424
Sec6	423	324	402	455	555	489	431
*avg.	365	345	402	424	499	537	424

Time Residual Means and Sigmas (Total Width)

Run Number 61778

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	18	38	-28	-15	-36	-33	-9
Sec2	11	25	-22	-31	-24	-48	-14
Sec3	48	20	-13	-22	-47	-20	-5
Sec4	27	32	-8	-14	-50	-48	-10
Sec5	34	31	-6	-14	-21	-42	-3
Sec6	40	21	-12	-30	-58	-56	-16
avg.	30	28	-15	-21	-39	-41	-9

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	346	368	414	397	461	497	412
Sec2	373	349	429	413	523	586	440
Sec3	354	342	391	498	487	580	435
Sec4	329	343	374	373	436	516	390
Sec5	379	344	401	408	482	513	414
Sec6	444	318	404	450	553	482	431
*avg.	370	343	400	420	488	527	420

Time Residual Means and Sigmas (Total Width)

Run Number 61819

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	28	30	-24	-18	-33	-28	-7
Sec2	28	24	-30	-40	-65	-48	-22
Sec3	45	21	-19	-24	-29	-24	-4
Sec4	44	27	-7	-16	-15	-43	-1
Sec5	38	32	-9	-14	-69	-53	-12
Sec6	56	22	-19	-40	-62	-28	-12
avg.	40	26	-18	-25	-45	-37	-10

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	336	360	405	399	468	490	405
Sec2	375	348	438	416	522	591	441
Sec3	352	342	397	511	496	582	435
Sec4	338	332	367	374	435	527	390
Sec5	377	339	392	400	497	510	416
Sec6	441	317	402	450	559	478	432
*avg.	366	338	399	421	493	527	419

Time Residual Means and Sigmas (Total Width)

Run Number 61860

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	33	28	-16	-12	-28	-30	-4
Sec2	21	21	-27	-24	-50	-61	-20
Sec3	36	21	-14	-19	-46	-78	-16
Sec4	25	25	-8	-6	-2	-35	0
Sec5	27	26	-4	-3	-22	-45	-3
Sec6	35	20	-13	-25	-27	-51	-10
avg.	29	23	-14	-15	-29	-50	-9

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	358	377	420	408	475	526	424
Sec2	384	369	438	414	522	597	448
Sec3	367	350	405	530	492	589	447
Sec4	342	352	384	385	443	543	404
Sec5	400	353	419	425	492	527	433
Sec6	449	329	412	453	541	496	440
*avg.	380	354	412	433	492	544	432

Time Residual Means and Sigmas (Total Width)

Run Number 61935

Time residual means (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	avg.
Sec1	28	27	0	-3	-16	-55	-3
Sec2	18	33	-7	-17	-83	-54	-18
Sec3	42	12	3	-20	-77	-25	-10
Sec4	21	23	-2	-12	-7	-60	-6
Sec5	39	24	-6	-21	-96	-53	-19
Sec6	42	22	-5	-27	-26	-58	-8
avg.	32	23	-3	-17	-51	-51	-11

Total width (microns)

	SL1	SL2	SL3	SL4	SL5	SL6	*avg.
Sec1	373	312	347	335	413	462	367
Sec2	365	306	377	344	466	517	390
Sec3	428	289	375	494	469	512	417
Sec4	293	301	343	329	388	461	346
Sec5	380	324	382	378	459	469	389
Sec6	394	303	363	432	517	437	394
*avg.	367	305	360	383	450	476	383