

date	shift	run	file	N events	horizontal	vertical	(GeV) MP	comments	Temperatur Log	Date & Time	Temperature	
										29.10.19 - 22:00	19.7	air temperature, lab thermostat on top of box
										30.11.19 - 14:00	20	
										01.11.19 - 11:00	18.6	
WAVECATCHER: data save path C:\Users\vmel\Desktop\Last version\Run_Data\TestBeam2019\16CH data save path C:\Users\vmel\Desktop\Last version\Run_Data\TestBeam2019\32CH												
			#Events	#Channels	bold number							
total sum:	4201007	39	16389273									
test beam 2018	1014128	30	30423840									
test beam 2017	630000	9	5670000									
target 2 -> 4mm Cu, SiPM HV = 58V, MUSIC LV = 6.5V, beam exit collimator: 2x2mm ² , WaveCatcher config: TestBeam_Run10k_WC16/32, trigger signal 16CH: 4x PMT discriminator Signal in software coincidence, trigger signal 32CH: hardware coincidence trigger												
DI 29.10.	all		1 1_pos0_angle0_e26_ch16 & 32	10000	0	0	2.6 0					
			2 2_pos0_angle0_e14_ch16 & 32	10000	0	0	1.4 0					
			3 3_pos0_angle0_e52_ch16 & 32	10000	0	0	5.2 0					
			4 4_pos1_angle0_e14_ch16 & 32	10000	160	160	1.4 1					
			5 5_pos1_angle0_e26_ch16 & 32	10000	160	160	2.6 1					
			6 6_pos1_angle0_e52_ch16 & 32	10000	160	160	5.2 1					
			7 7_pos2_angle0_e14_ch16 & 32	10000	320	320	1.4 2					
			8 8_pos2_angle0_e14_ch16 & 32	100000	320	320	1.4 2					
			9 9_pos2_angle0_e26_ch16 & 32	10000	320	320	2.6 2					
			10 10_pos3_angle0_e14_ch16 & 32	10000	-320	-320	1.4 3					
			11 11_pos3_angle0_e26_ch16 & 32	10000	-320	320	2.6 3					
			12 12_pos3_angle0_e52_ch16 & 32	10000	-320	320	5.2 3					
			13 13_pos4_angle0_e52_ch16 & 32	10000	320	320	5.2 2					
			14 14_pos4_angle0_e14_ch16 & 32	10000	-160	160	1.4 4					
			15 15_pos4_angle0_e26_ch16 & 32	10000	-160	160	2.6 4					
			16 16_pos4_angle0_e52_ch16 & 32	10000	-160	160	5.2 4	Save data on external hard drive				
			17 17_pos0_angle0_e14_ch16 & 32	300000	0	0	1.4 0					
MI 30.10.	Jan & Julian		18 18_pos5_angle0_e14_ch16 & 32	10000	-160	-160	1.4 5	desy table interface in hut seems to mess with coordinates, recalibrated box coordinates with laser cross, moved telescope back and forth to open line of sight for laser, marked pos0 coordinates on table, marked telescope coordinate				
			19 19_pos5_angle0_e26_ch16 & 32	10000	-160	-160	2.6 5	broken interlock to eaily, don't use CH16 measurement!, CH32 fine				
			20 20_pos5_angle0_e52_ch16 & 32	10000	-160	-160	5.2 5	to rule out user error, used hut table remote again, result: x-coordinate doesn't scale correctly, recalibrated box coordinates with laser cross, moved telescope back and forth to open line of sight for laser				
		& Maximilian	21 21_pos6_angle0_e52_ch16 & 32	10000	-320	-320	5.2 6					
			22 22_pos6_angle0_e26_ch16 & 32	10000	-320	-320	2.6 6					
			23 23_pos6_angle0_e14_ch16 & 32	10000	-320	-320	1.4 6					
			24 24_pos7_angle0_e14_ch16 & 32	10000	320	-320	1.4 7					
			25 25_pos7_angle0_e26_ch16 & 32	10000	320	-320	2.6 7					
			26 26_pos7_angle0_e52_ch16 & 32	10000	320	-320	5.2 7					
			27 27_pos8_angle0_e52_ch16 & 32	10000	160	-160	5.2 8					
			28 28_pos8_angle0_e26_ch16 & 32	10000	160	-160	2.6 8					
			29 29_pos8_angle0_e14_ch16 & 32	10000	160	-160	1.4 8	Save data on external hard drive				
			30 30_pos8_angle0_e26_ch16 & 32	10000	160	-510	2.6 9					
			31 31_pos9_angle0_e14_ch16 & 32	10000	160	-510	1.4 9					
			32 32_pos9_angle0_e52_ch16 & 32	10000	160	-510	5.2 9					
			33 33_pos10_angle0_e52_ch16 & 32	10000	204	-404	5.2 10					
			34 34_pos10_angle0_e26_ch16 & 32	10000	204	-404	2.6 10					
			35 35_pos10_angle0_e14_ch16 & 32	10000	204	-404	1.4 10					
			36 36_pos11_angle0_e14_ch16 & 32	10000	310	-360	1.4 11					
			37 37_pos11_angle0_e26_ch16 & 32	10000	310	-360	2.6 11					
			38 38_pos11_angle0_e52_ch16 & 32	10000	310	-360	5.2 11	Save data on external hard drive, rotate box by 30 degree				
		Patrick & Maximilian	39 39_pos0_angle30_e14_ch16 & 32	10000	0	0	1.4 0					
			40 40_pos0_angle30_e26_ch16 & 32	10000	0	0	2.6 0					
			41 41_pos0_angle30_e52_ch16 & 32	10000	0	0	5.2 0					
			42 42_pos1_angle30_e14_ch16 & 32	10000	140	160	1.4 1					
			43 43_pos1_angle30_e26_ch16 & 32	10000	140	160	2.6 1					
			44 44_pos1_angle30_e52_ch16 & 32	10000	140	160	5.2 1					
			45 45_pos2_angle30_e14_ch16 & 32	10000	282	320	1.4 2					
			46 46_pos2_angle30_e26_ch16 & 32	10000	282	320	2.6 2					
			47 47_pos2_angle30_e52_ch16 & 32	10000	282	320	5.2 2					
			48 48_pos3_angle30_e14_ch16 & 32	10000	-282	320	1.4 3					
			49 49_pos3_angle30_e26_ch16 & 32	10000	-282	320	2.6 3					
			50 50_pos3_angle30_e52_ch16 & 32	10000	-282	320	5.2 3					
			51 51_pos4_angle30_e14_ch16 & 32	10000	-140	160	1.4 4					
			52 52_pos4_angle30_e26_ch16 & 32	10000	-140	160	2.6 4					
			53 53_pos4_angle30_e52_ch16 & 32	10000	-140	160	5.2 4					
			54 54_pos5_angle30_e14_ch16 & 32	10000	-140	-160	1.4 5					
			55 55_pos5_angle30_e26_ch16 & 32	10000	-140	-160	2.6 5					
			56 56_pos5_angle30_e52_ch16 & 32	10000	-140	-160	5.2 5	save data on external hard drive				
			57 57_pos0_angle30_e14_ch16 & 32	100000	0	0	1.4 0	run stopped by hand				
			58 58_pos6_angle30_e14_ch16 & 32	10000	-282	-320	1.4 6					
			59 59_pos6_angle30_e26_ch16 & 32	10000	-282	-320	2.6 6					
			60 60_pos6_angle30_e52_ch16 & 32	10000	-282	-320	5.2 6					
			61 61_pos7_angle30_e14_ch16 & 32	10000	282	-320	1.4 7					
			62 62_pos7_angle30_e26_ch16 & 32	10000	282	-320	2.6 7					
			63 63_pos7_angle30_e52_ch16 & 32	10000	282	-320	5.2 7					
			64 64_pos8_angle30_e14_ch16 & 32	10000	-140	160	1.4 8					
			65 65_pos8_angle30_e26_ch16 & 32	10000	-140	160	2.6 8					
			66 66_pos8_angle30_e52_ch16 & 32	10000	-140	160	5.2 8	save data on external hard drive				
			67 67_pos0_angle30_e14_ch16 & 32	500000	0	0	1.4 0	500000 was planned, missed one 0				
								try to find the reason for missshaped waveforms, changed WaveCatcher Offset, switched off one of two WaveCatchers, used CH32 and CH16 seperately, no changes in missshaped waveforms, more likely to much ligh hitting WOMs -> Bad events can now be excluded from further analysis by the read script				
DO 31.10.	Jan & Julian	test	several testruns									
	Patrick & Maximilian		68 68_pos12_angle30_e14_ch16 & 32	10000	-282	0	1.4 12					
			69 69_pos12_angle30_e26_ch16 & 32	10000	-282	0	2.6 12					
			70 70_pos12_angle30_e52_ch16 & 32	10000	-282	0	5.2 12					
			71 71_pos13_angle30_e14_ch16 & 32	10000	282	0	1.4 13					
			72 72_pos13_angle30_e26_ch16 & 32	10000	282	0	2.6 13					
			73 73_pos13_angle30_e52_ch16 & 32	10000	282	0	5.2 13					
			74 74_pos14_angle30_e14_ch16 & 32	10000	0	407	1.4 14					
			75 75_pos14_angle30_e26_ch16 & 32	10000	0	407	2.6 14					
			76 76_pos14_angle30_e52_ch16 & 32	10000	0	407	5.2 14					
			77 77_pos15_angle30_e14_ch16 & 32	10000	0	-460	1.4 15	reached table lower y-limit, is higher than before rotation (~ -550)				
			78 78_pos15_angle30_e26_ch16 & 32	10000	0	-460	2.6 15					
			79 79_pos15_angle30_e52_ch16 & 32	10000	0	-460	5.2 15					
			80 80_pos16_angle30_e14_ch16 & 32	10000	0	-160	1.4 16					
			81 81_pos16_angle30_e26_ch16 & 32	10000	0	-160	2.6 16					
			82 82_pos16_angle30_e52_ch16 & 32	10000	0	-160	5.2 16					
			83 83_pos17_angle30_e14_ch16 & 32	10000	0	160	1.4 17					
			84 84_pos17_angle30_e26_ch16 & 32	10000	0	160	2.6 17					
			85 85_pos17_angle30_e52_ch16 & 32	10000	0	160	5.2 17					
			86 86_pos18_angle30_e14_ch16 & 32	10000	-140	0	1.4 18					
			87 87_pos18_angle30_e26_ch16 & 32	11000	-140	0	2.6 18	stopped run by hand, missed to switch back numbers from last run				
			88 88_pos18_angle30_e52_ch16 & 32	10000	-140	0	5.2 18					
			89 89_pos19_angle30_e14_ch16 & 32	10000	140	0	1.4 19					

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FR 01.11.	Jan & Julian		90 90_pos19_angle30_e26_ch 16 & 32	10000	140	0	2.6 19					
			91 91_pos19_angle30_e52_ch 16 & 32	10000	140	0	5.2 19	save data on external hard drive				
			92 92_pos12_angle30_e14_ch 16 & 32	550000	-282	0	1.4 12					
			93 93_pos12_angle30_e10_ch 16 & 32	10000	-282	0	1.0 12					
			94 94_pos12_angle30_e20_ch 16 & 32	10000	-282	0	2.0 12					
			95 95_pos12_angle30_e30_ch 16 & 32	10000	-282	0	3.0 12					
			96 96_pos12_angle30_e40_ch 16 & 32	10000	-282	0	4.0 12					
			97 97_pos12_angle30_e50_ch 16 & 32	10000	-282	0	5.0 12	16 WC switched too early - 9600				
			98 98_pos12_angle30_e60_ch 16 & 32	1500	-282	0	6.0 12	aborted cause took too long				
								checked WOM B & C cause of low signals, some LAB inside cover of WOM B and bad optical coupling, recoupled WOM B, WOM C was looking good but was attached to WOM with crack				
	Jan & Maximilian		99 99_pos0_angle30_e26_ch 16 & 32	25000	0	0	2.6 0					
			100 100_pos0_angle30_e40_ch 16 & 32	25000	0	0	4.0 0					
			101 101_pos0_angle30_e14_ch 16 & 32	25000	0	0	1.4 0					
			102 102_pos20_angle30_e14_ch 16 & 32	15000	282	-510	1.4 20	hitting WOM D, now it was possible to go below -460 again				
			103 103_pos20_angle30_e26_ch 16 & 32	15000	282	-510	2.6 20					
			104 104_pos21_angle30_e14_ch 16 & 32	15000	240	-510	1.4 21					
			105 105_pos21_angle30_e26_ch 16 & 32	15000	240	-510	2.6 21					
			106 106_pos22_angle30_e14_ch 16 & 32	20000	0	-510	1.4 22					
			107 107_pos22_angle30_e26_ch 16 & 32	20000	0	-510	2.6 22					
			108 108_pos23_angle30_e14_ch 16 & 32	25000	-290	-510	1.4 23	hitting WOM B				
	Maximilian & Patrick		109 109_pos23_angle30_e26_ch 16 & 32	25000	-290	-510	2.6 23					
			110 110_pos6_angle30_e14_ch 16 & 32	100000	-282	-320	1.4 6					
			111 111_pos3_angle30_e14_ch 16 & 32	100000	-282	320	1.4 3	save data				
			112 112_pos5_angle30_e14_ch 16 & 32	500000	-140	-160	1.4 5					
			113 1_cosmics_bv58_ch32	10000	/	/	/ /	cosmics, triggered on WOM A & B, threshold 6mV				
			114 2_cosmics_bv58_ch32	2500	/	/	/ /					
			115 113_pos0_angle30_e14_ch 16 & 32	10000	0	0	1.4 0	59 V bias voltage				
			116 114_pos0_angle30_e26_ch 16 & 32	10000	0	0	2.6 0					
			117 115_pos0_angle30_e52_ch 16 & 32	10000	0	0	5.2 0					
			118 116_pos1_angle30_e14_ch 16 & 32	10000	140	160	1.4 1					
	SA 02.11.		119 117_pos1_angle30_e26_ch 16 & 32	10000	140	160	2.6 1					
			120 118_pos1_angle30_e52_ch 16 & 32	10000	140	160	5.2 1					
			121 119_pos4_angle30_e14_ch 16 & 32	10000	-140	160	1.4 4					
			122 120_pos4_angle30_e26_ch 16 & 32	10000	-140	160	2.6 4					
			123 121_pos4_angle30_e52_ch 16 & 32	10000	-140	160	5.2 4					
			124 122_pos5_angle30_e14_ch 16 & 32	10000	-140	-160	1.4 5					
			125 3_cosmics_bv59_ch32	35007	/	/	/ /	cosmics, threshold 4mV, triggered on WOM A & B				
			126 4_cosmics_bv59_ch32	180000	/	/	/ /	cosmics, threshold 4mV, triggered on WOM A				
			127 123_pos5_angle30_e26_ch 16 & 32	7000	-140	-160	2.6 5					
			128 5_cosmics_bv59_ch32	32000	/	/	/ /	cosmic run with beam at some point				
	Heiko & Maximilian		129 124_pos5_angle30_e52_ch 16 & 32	10000	-140	-160	5.2 5					
			130 125_pos8_angle30_e14_ch 16 & 32	10000	140	-160	1.4 8					
			131 126_pos8_angle30_e26_ch 16 & 32	10000	140	-160	2.6 8					
			132 127_pos8_angle30_e52_ch 16 & 32	10000	140	-160	5.2 8					
			133 128_pos0_angle30_e14_ch 16 & 32	10000	0	0	1.4 0	bias voltage 57V				
			134 129_pos0_angle30_e26_ch 16 & 32	10000	0	0	2.6 0					
			135 130_pos0_angle30_e52_ch 16 & 32	80000	0	0	5.2 0					
			136 131_pos1_angle30_e14_ch 16 & 32	10000	140	160	1.4 1					
			137 132_pos1_angle30_e26_ch 16 & 32	10000	140	160	2.6 1					
			138 133_pos1_angle30_e52_ch 16 & 32	10000	140	160	5.2 1					
	SO 03.11.		139 134_pos4_angle30_e14_ch 16 & 32	10000	-140	160	1.4 4					
			140 135_pos4_angle30_e26_ch 16 & 32	10000	-140	160	2.6 4					
			141 136_pos4_angle30_e52_ch 16 & 32	10000	-140	160	5.2 4					
			142 137_pos5_angle30_e14_ch 16 & 32	10000	-140	-160	1.4 5					
			143 138_pos5_angle30_e26_ch 16 & 32	10000	-140	-160	2.6 5					
			144 139_pos5_angle30_e52_ch 16 & 32	10000	-140	-160	5.2 5					
			145 140_pos8_angle30_e14_ch 16 & 32	10000	140	-160	1.4 8					
			146 141_pos8_angle30_e26_ch 16 & 32	10000	140	-160	2.6 8					
			147 142_pos8_angle30_e52_ch 16 & 32	10000	140	-160	5.2 8	saved data on hard drive				
			148 6_cosmics_bv58_ch32	400000	/	/	/ /	Cosmics, triggered on WOM A , threshold 4mV, 58V bias voltage				
	149 7_cosmics_bv58_ch32	40000	/	/	/ /							
	150 8_cosmics_bv58_ch32	50000	/	/	/ /							
	151 9_cosmics_bv58_ch32	28000										
	152 143_pos14_angle30_e52_ch 16 & 32	10000										
	153 144_pos1_angle30_e26_ch 16 & 32	10000										
	154 145_pos0_angle30_e52_ch 16 & 32	10000										
	155 146_pos0_angle30_e26_ch 16 & 32	10000										
	156 147_pos1_angle30_e26_ch 16 & 32	10000					Wrong binary file name, fixed on folder level					
	157 148_pos4_angle30_e26_ch 16 & 32	10000										
	158 149_pos5_angle30_e26_ch 16 & 32	10000										
	159 150_pos8_angle30_e26_ch 16 & 32	10000										
								Ende der Messungen. Vielen Dank an alle Beteiligten!				