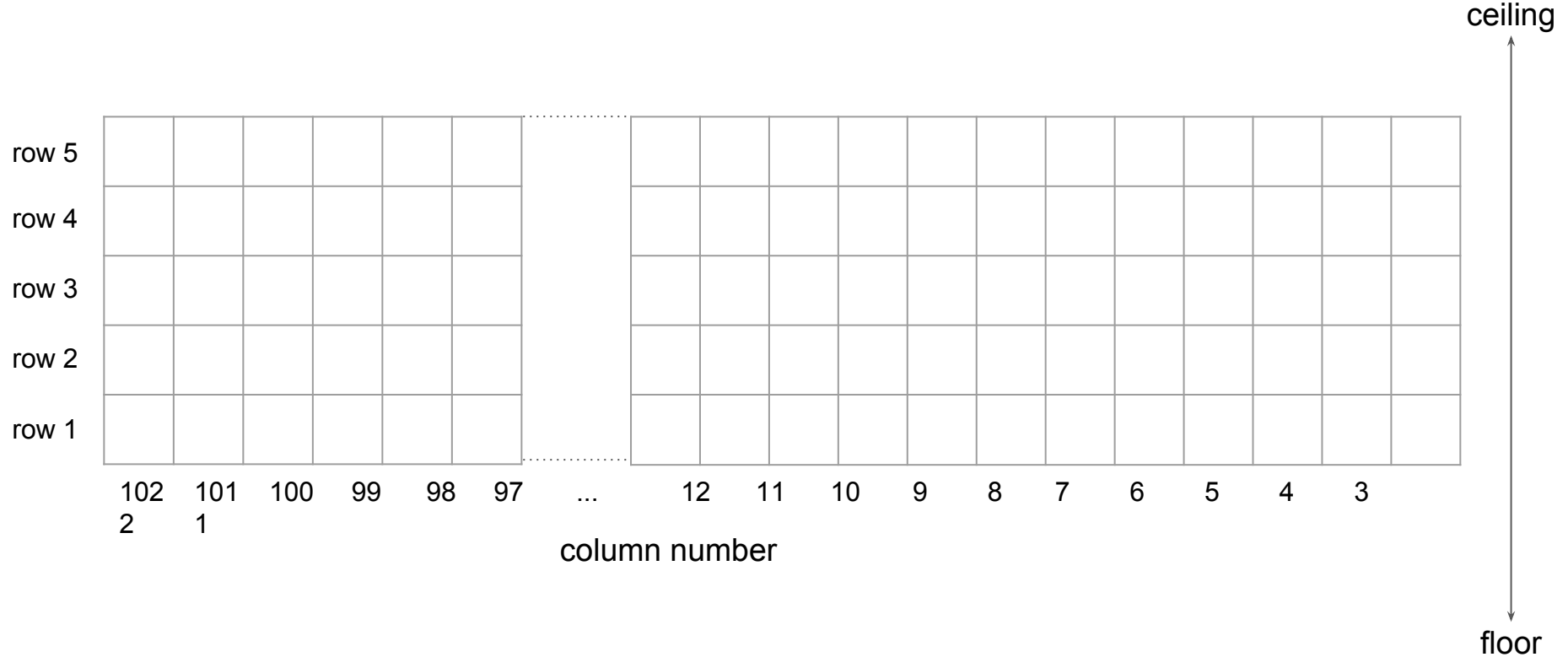


TAGM fiber geometry

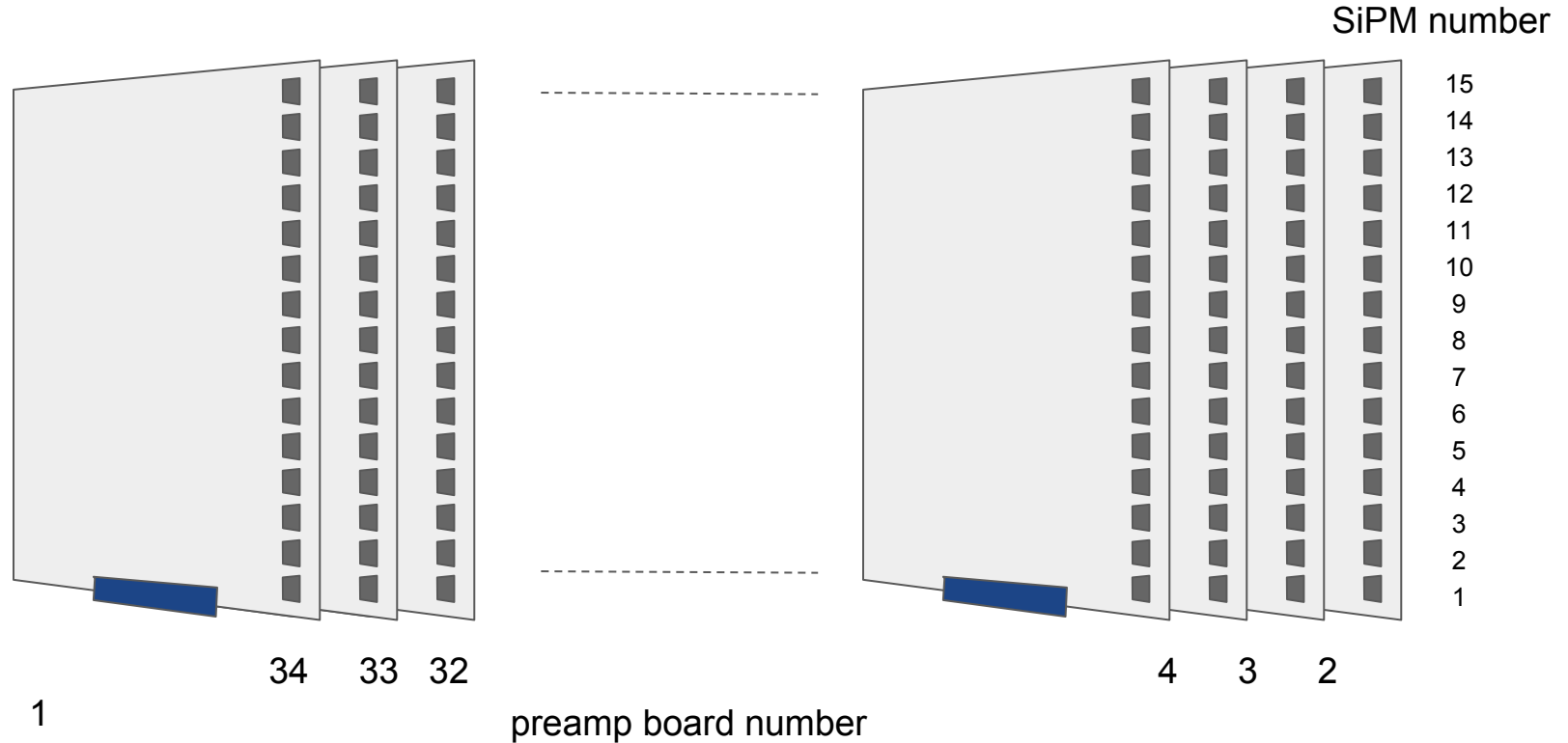
January 3, 2018

Richard Jones, University of Connecticut

View from incoming electron, looking forward



View from light pulse coming down the guide fibers




Map from row, column to SiPM number

Contents of each box is interpreted as *preamp board #, SiPM #*

row 5	34, 5	34, 10	34, 15	33, 5	33, 10	33, 15	...	4, 5	4, 10	4, 15	3, 5	3, 10	3, 15	2, 5	2, 10	2, 15	1, 5	1, 10	1, 15
row 4	34, 4	34, 9	34, 14	33, 4	33, 9	33, 14	...	4, 4	4, 9	4, 14	3, 4	3, 9	3, 14	2, 4	2, 9	2, 14	1, 4	1, 9	1, 14
row 3	34, 3	34, 8	34, 13	33, 3	33, 8	33, 13	...	4, 3	4, 8	4, 13	3, 3	3, 8	3, 13	2, 3	2, 8	2, 13	1, 3	1, 8	1, 13
row 2	34, 2	34, 7	34, 12	33, 2	33, 7	33, 12	...	4, 2	4, 7	4, 12	3, 2	3, 7	3, 12	2, 2	2, 7	2, 12	1, 2	1, 7	1, 12
row 1	34, 1	34, 6	34, 11	33, 1	33, 6	33, 11	...	4, 1	4, 6	4, 11	3, 1	3, 6	3, 11	2, 1	2, 6	2, 11	1, 1	1, 6	1, 11
	102 2	101 1	100	99	98	97	...	12	11	10	9	8	7	6	5	4	3		

column number

ceiling

 floor

Mapping preamp, SiPM numbers to Vbias address

- a Vbias address is formed from a Vbias control board geographical address (hex number) together with a channel number [0 .. 29], eg. 0x8e[15]
- Vbias addresses are used by setVbias to talk to the Vbias control boards in the TAGM frontend electronics.

0x8e[0-14] = 1,1 - 1,15

0x8f[0-14] = 3,1 - 3,15

0x90[0-14] = 5,1 - 5,15

0x91[0-14] = 7,1 - 7,15

0x92[0-14] = 9,1 - 9,15

...

0x9d[0-14] = 31,1 - 31,15

0x9e[0-14] = 33,1 - 33,15

0x8e[15-29] = 2,1 - 2,15

0x8f[15-29] = 4,1 - 4,15

0x90[15-29] = 6,1 - 6,15

0x91[15-29] = 8,1 - 8,15

0x92[15-29] = 10,1 - 10,15

...

0x9d[15-29] = 32,1 - 32,15

0x9e[15-29] = 34,1 - 34,15