

# Current problems with embedding

April 15, 2020

```

//Module: 0=00 (mod0,hotZone),
// 1=01 (mod0,bigZone),
// 2=10 (mod1,hotZone),
// 3=11 (mod1,bigZone)

```

| Serial    | Ch_lo | Ch_hi | GEM_id | Station | Module |
|-----------|-------|-------|--------|---------|--------|
| 0x76D08B9 | 512   | 639   | 110    | 0       | 1      |
| 0x76D08B9 | 896   | 1023  | 100    | 1       | 3      |
| 0x76D08B9 | 640   | 767   | 50     | 2       | 3      |
| 0x76D08B9 | 768   | 895   | 51     | 2       | 1      |
| 0x76D08B9 | 1920  | 2047  | 60     | 3       | 1      |
| 0x76D08B9 | 1792  | 1919  | 61     | 3       | 3      |
| 0x76D08B9 | 1024  | 1151  | 80     | 4       | 3      |
| 0x76D08B9 | 1152  | 1279  | 81     | 4       | 1      |
| 0x76D08B9 | 1280  | 1407  | 90     | 5       | 1      |
| 0x76D08B9 | 1408  | 1535  | 91     | 5       | 3      |

## Main idea:

- To test different `<strip-channel>` mappings trying to get a correct one ...
- Each choice leads to a certain `<strip-channel>` mapping (Left, Right) to be used when doing embedding
- A reasonable difference is expected to be seen for X'-strips (Left: 1080 strips, Right: 1130 strips)

```
// Choosing left or right part to be got from GemId
// depending on order ...
// Testing four different choices to get a corrected one ...

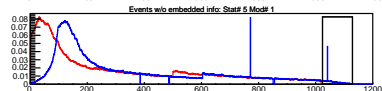
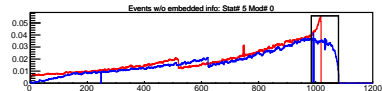
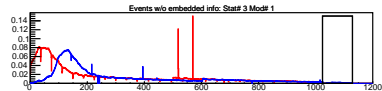
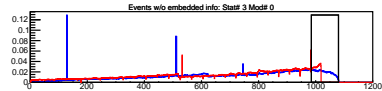
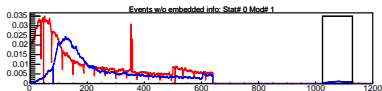
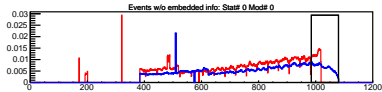
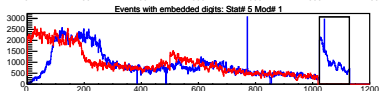
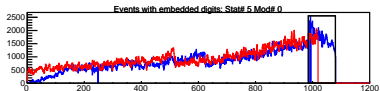
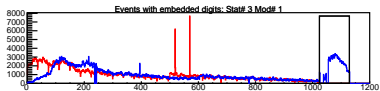
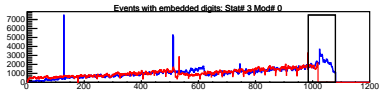
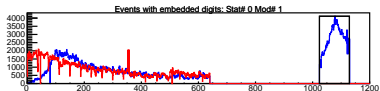
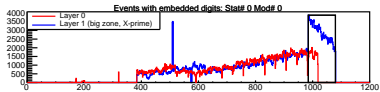
// Choice 1
if (fChoice1) {
    if (order == LeftToRightReading)
        LeftOrRight = (gemId % 10 == 0) ? "Left" : "Right";
    else
        LeftOrRight = (gemId % 10 == 0) ? "Right" : "Left";
}

// Choice 2
else if (fChoice2) {
    if (order == RightToLeftReading)
        LeftOrRight = (gemId % 10 == 0) ? "Left" : "Right";
    else
        LeftOrRight = (gemId % 10 == 0) ? "Right" : "Left";
}

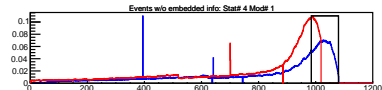
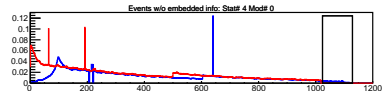
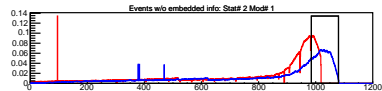
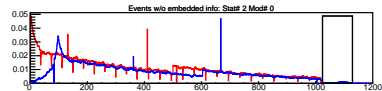
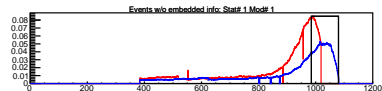
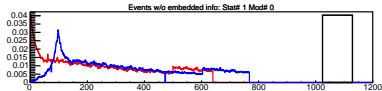
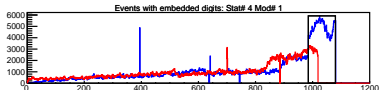
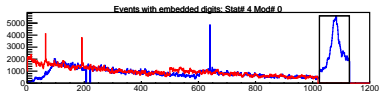
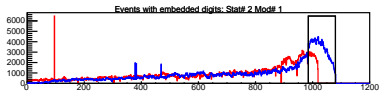
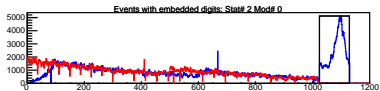
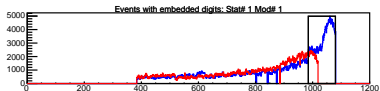
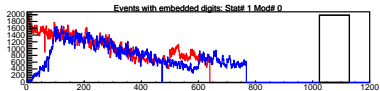
// Choice 3 (default)
else if (fChoice3)
    LeftOrRight = (gemId % 10 == 0) ? "Left" : "Right";

// Choice 4
else if (fChoice4)
    LeftOrRight = (gemId % 10 == 0) ? "Right" : "Left";
```

# Default mapping (choice 3), Stats 0, 3, 5 - LeftToRight

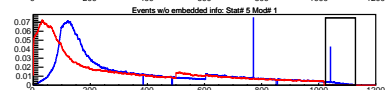
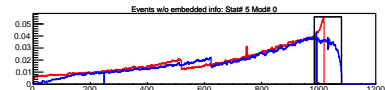
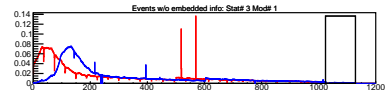
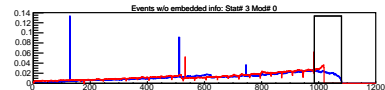
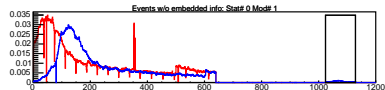
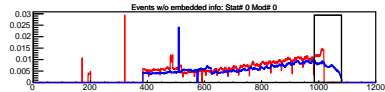
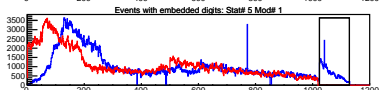
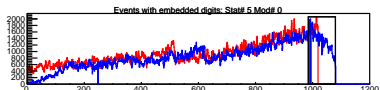
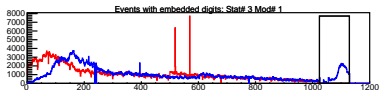
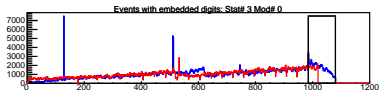
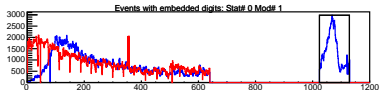
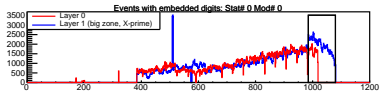


# Default mapping (choice 3), Stats 1, 2, 4 - RightToLeft

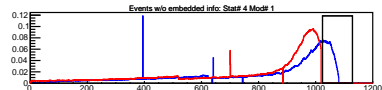
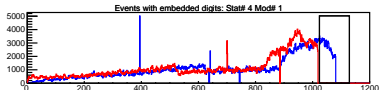
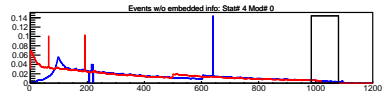
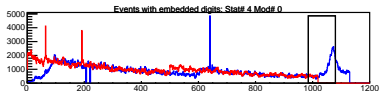
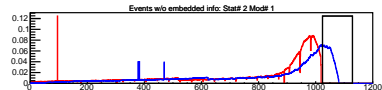
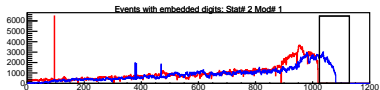
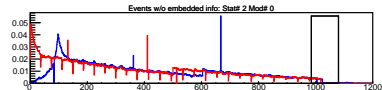
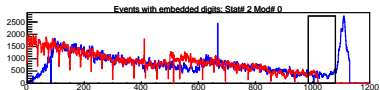
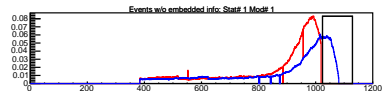
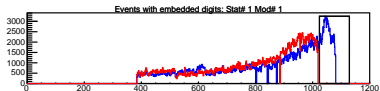
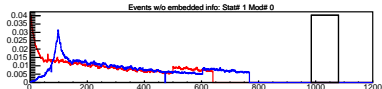
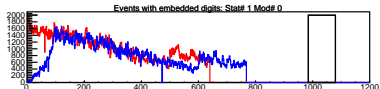


Seen approximately the  
same situation for the rest  
alternative choices...

# Default mapping (choice 1), Stats 0, 3, 5 - LeftToRight

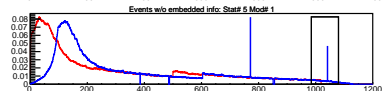
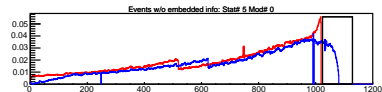
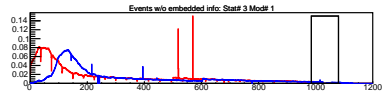
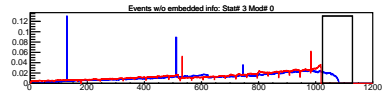
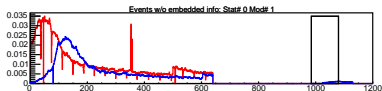
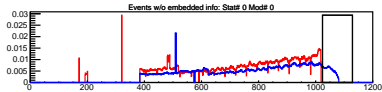
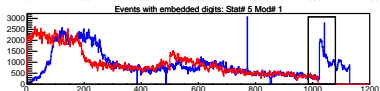
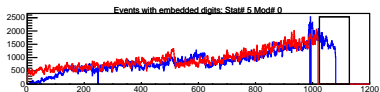
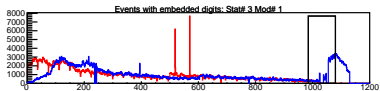
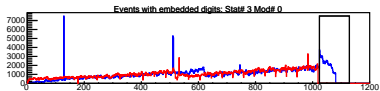
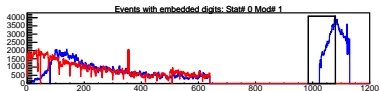
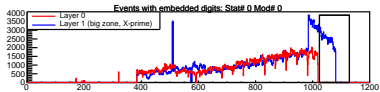


# Default mapping (choice 1), Stats 1, 2, 4 - RightToLeft

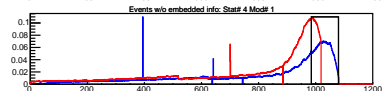
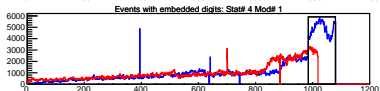
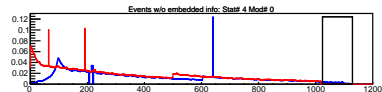
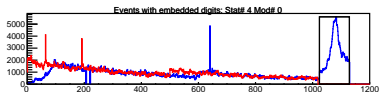
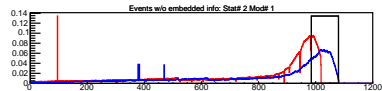
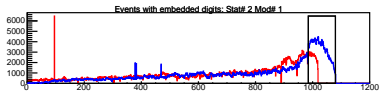
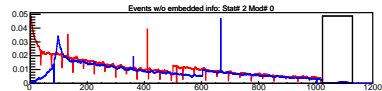
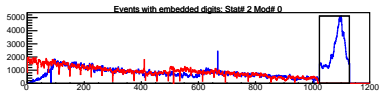
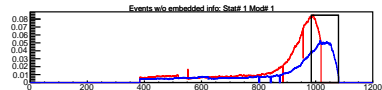
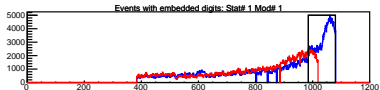
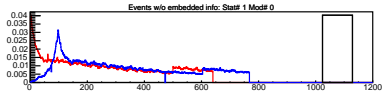
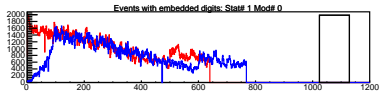




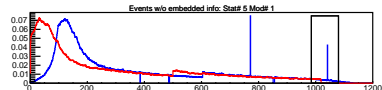
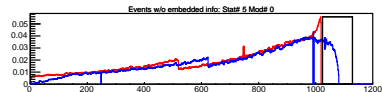
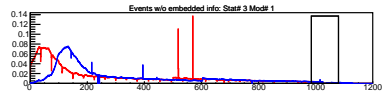
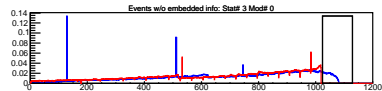
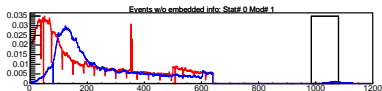
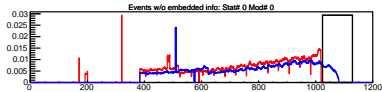
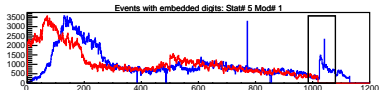
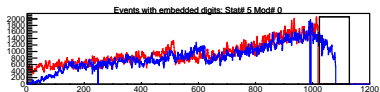
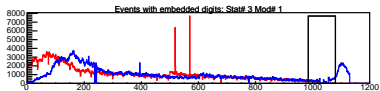
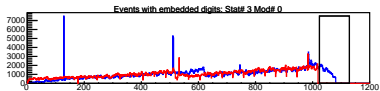
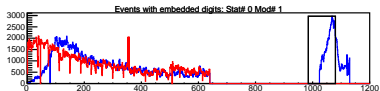
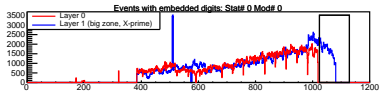
## Default mapping (choice 2), Stats 0, 3, 5 - LeftToRight



## Default mapping (choice 2), Stats 1, 2, 4 - RightToLeft



## Default mapping (choice 4), Stats 0, 3, 5 - LeftToRight



## Default mapping (choice 4), Stats 1, 2, 4 - RightToLeft

