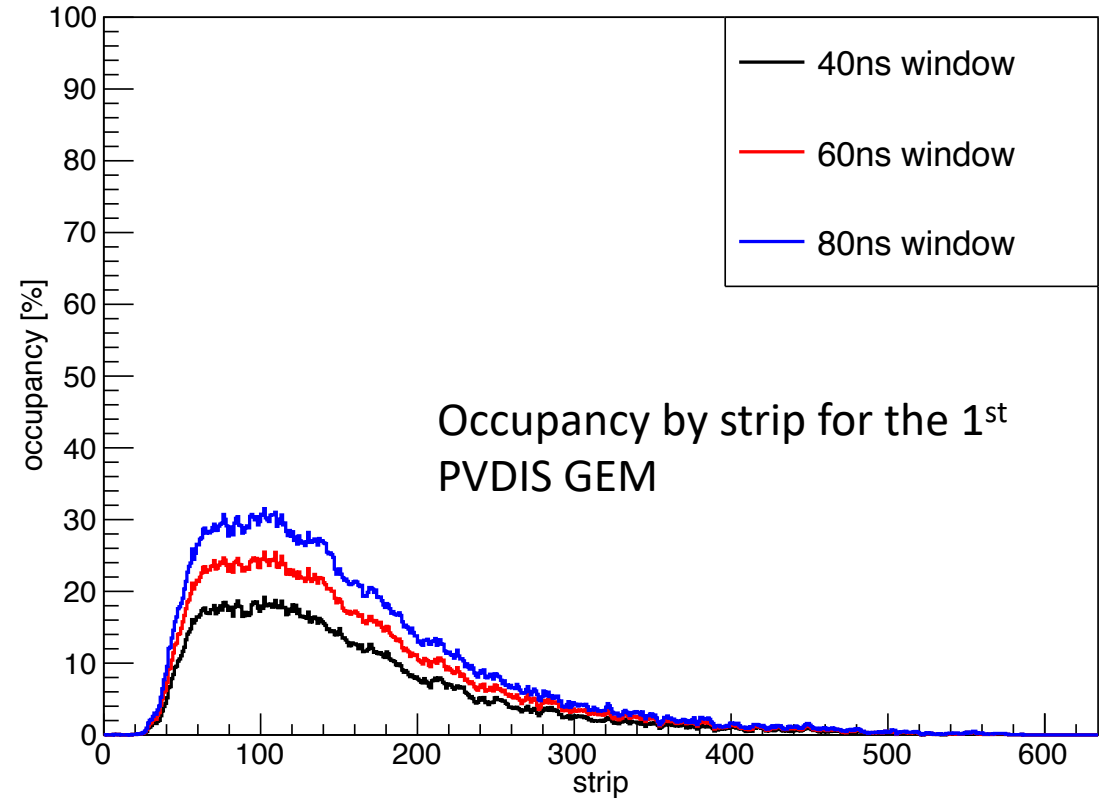# PVDIS occupancy and tracking

- Require raising edge of the signal
- VMM deadtime included
- Long strip no segmentation
- Occupancies with different cuts on the time stamp are given in the table:

	40ns	60ns	80ns
Plane 1	5.3%	7.1%	8.8%
Plane 2	2.7%	3.7%	4.6%
Plane 3	2.4%	3.2%	4.0%
Plane 4	0.9%	1.2%	1.6%
Plane 5	1.0%	1.3%	1.6%

Occupancy by strip for the 1st PVDIS GEM

Zero-track rate	Single-track rate	Multi-track rate	Single-track acc.
13.0%	86.8%	0.2%	94.2%

SIDIS-He3 and JPsi occupancy

SIDIS-He3 configuration

	40ns	60ns	80ns
Plane 1	0.8%	1.2%	1.5%
Plane 2	2.8%	3.9%	4.9%
Plane 3	1.3%	1.7%	2.2%
Plane 4	0.8%	1.1%	1.4%
Plane 5	0.8%	1.1%	1.3%
Plane 6	0.6%	0.8%	1.0%

JPsi configuration

	40ns	60ns	80ns
Plane 1	2.1%	3.0%	3.8%
Plane 2	4.3%	5.9%	7.4%
Plane 3	2.6%	3.6%	4.6%
Plane 4	2.0%	2.8%	3.6%
Plane 5	1.9%	2.6%	3.4%
Plane 6	1.5%	2.1%	2.7%

Track efficiency and accuracy at 100% bg

SIDIS-He3 configuration
With 40ns cut on time stamp

	Zero-track rate	Single-track rate	Multi-track rate	Single-track acc.
Single electron	2.7%	97.1%	0.0%	98.7%
Single pion	9.0%	90.9%	0.0%	97.9%

	Inefficient	Efficient	Outers	accuracy
Coincidence	11.0%	88.9%	0.0%	96.5%

JPsi configuration – single electron tracking
With 40ns cut on time stamp

Zero-track rate	Single-track rate	Multi-track rate	Single-track acc.
9.4%	90.5%	0.1%	96.7%

Additional Info

- Software location: https://github.com/xweizhi
  - Libsolgem version: 4e1b720
  - Reconstruction code version: 6831ab5

- No segmented strips in all cases
- GEMC info:
  - PVDIS: pass 4
  - SIDIS-He3: pass 7
  - Jpsi: pass5