

Down-Spin Studies

Noah Tessema

Yuhao Peng, Michael Roney

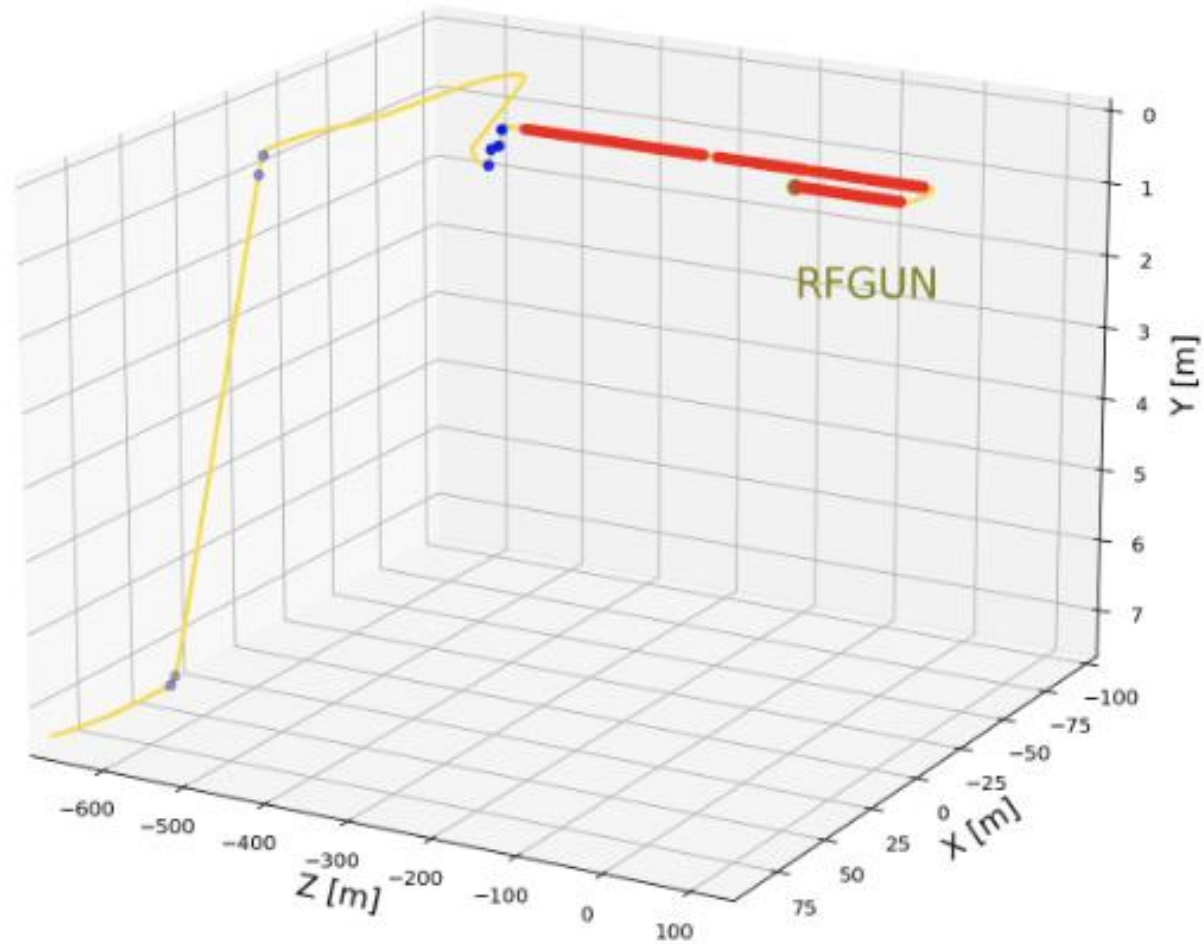


University
of Victoria

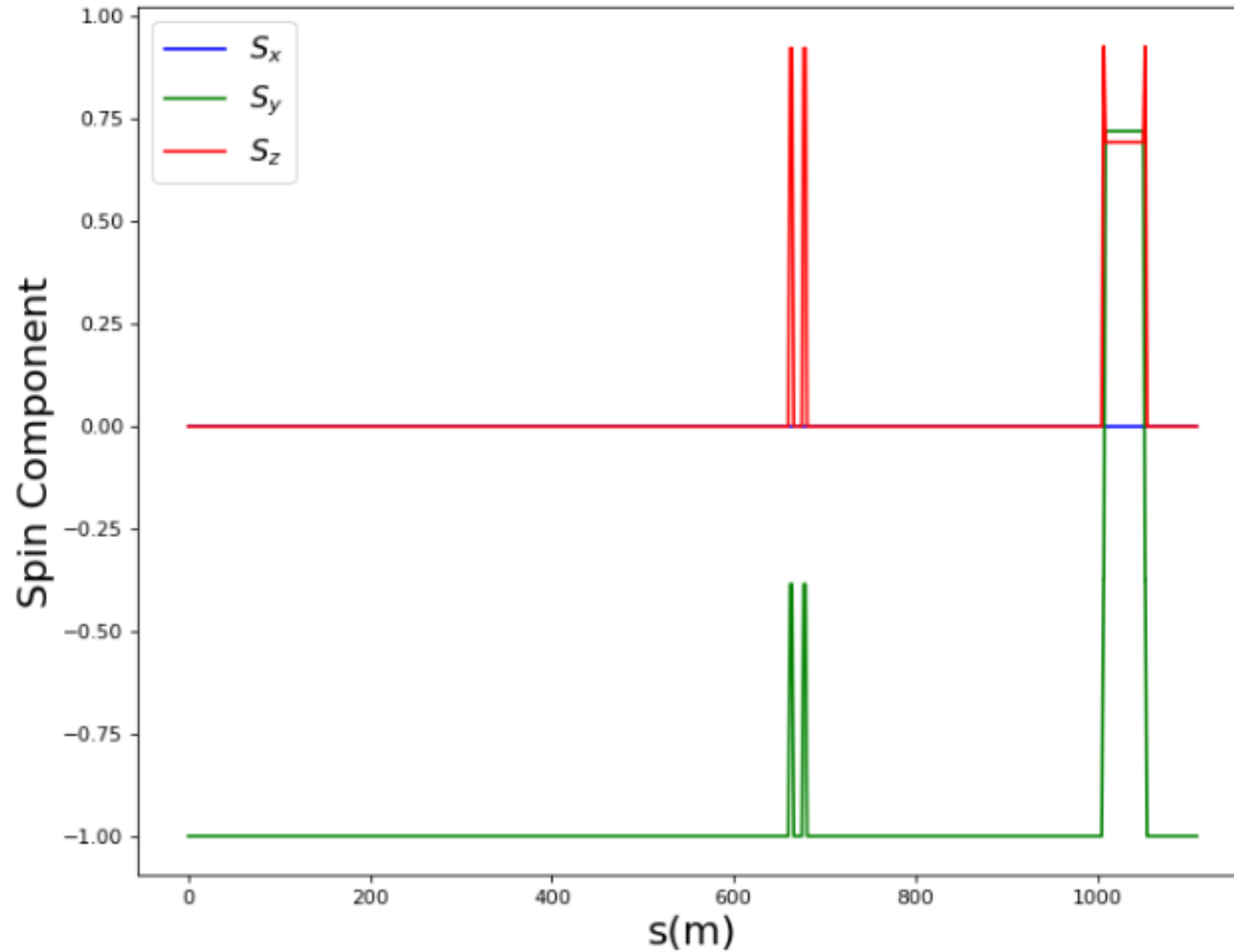


KEK Linac

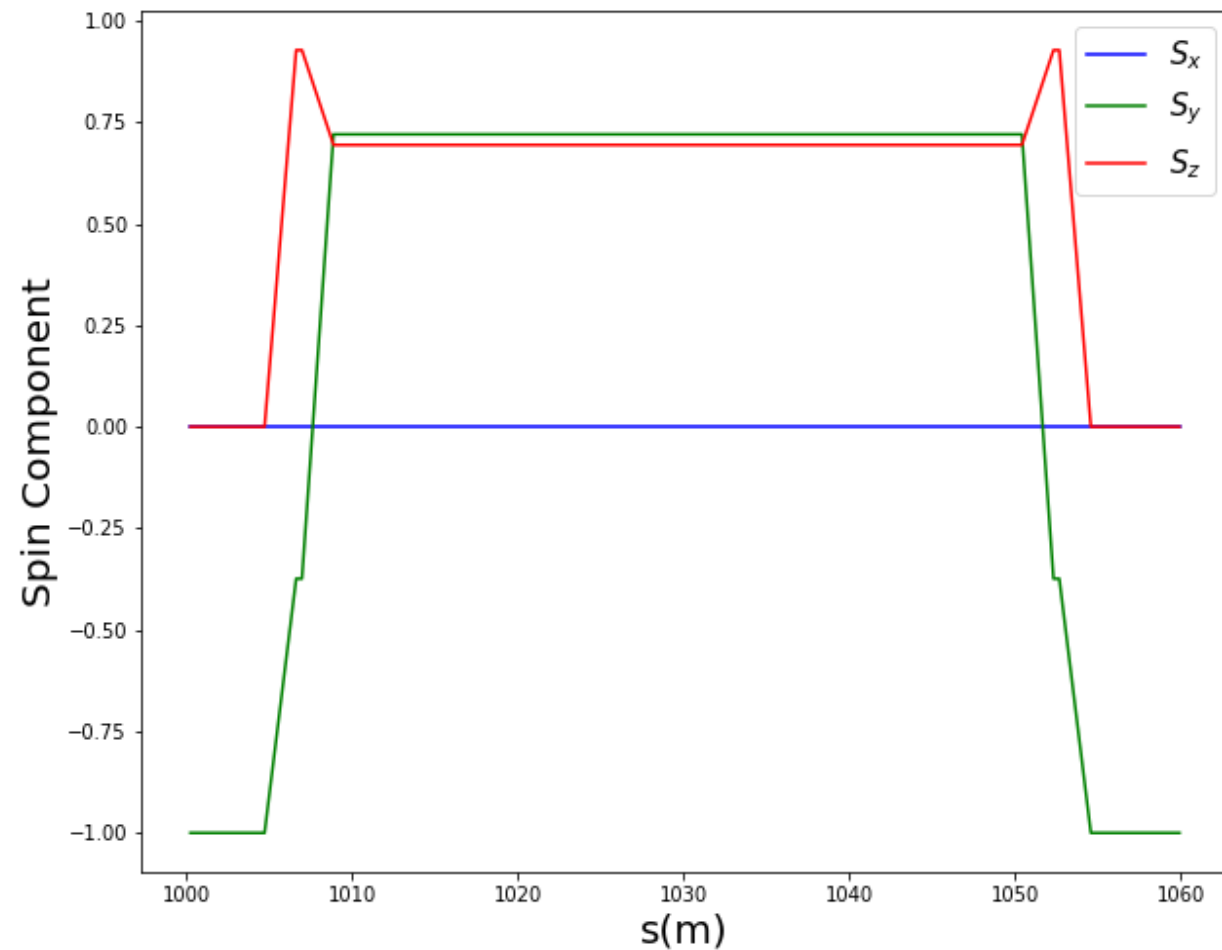
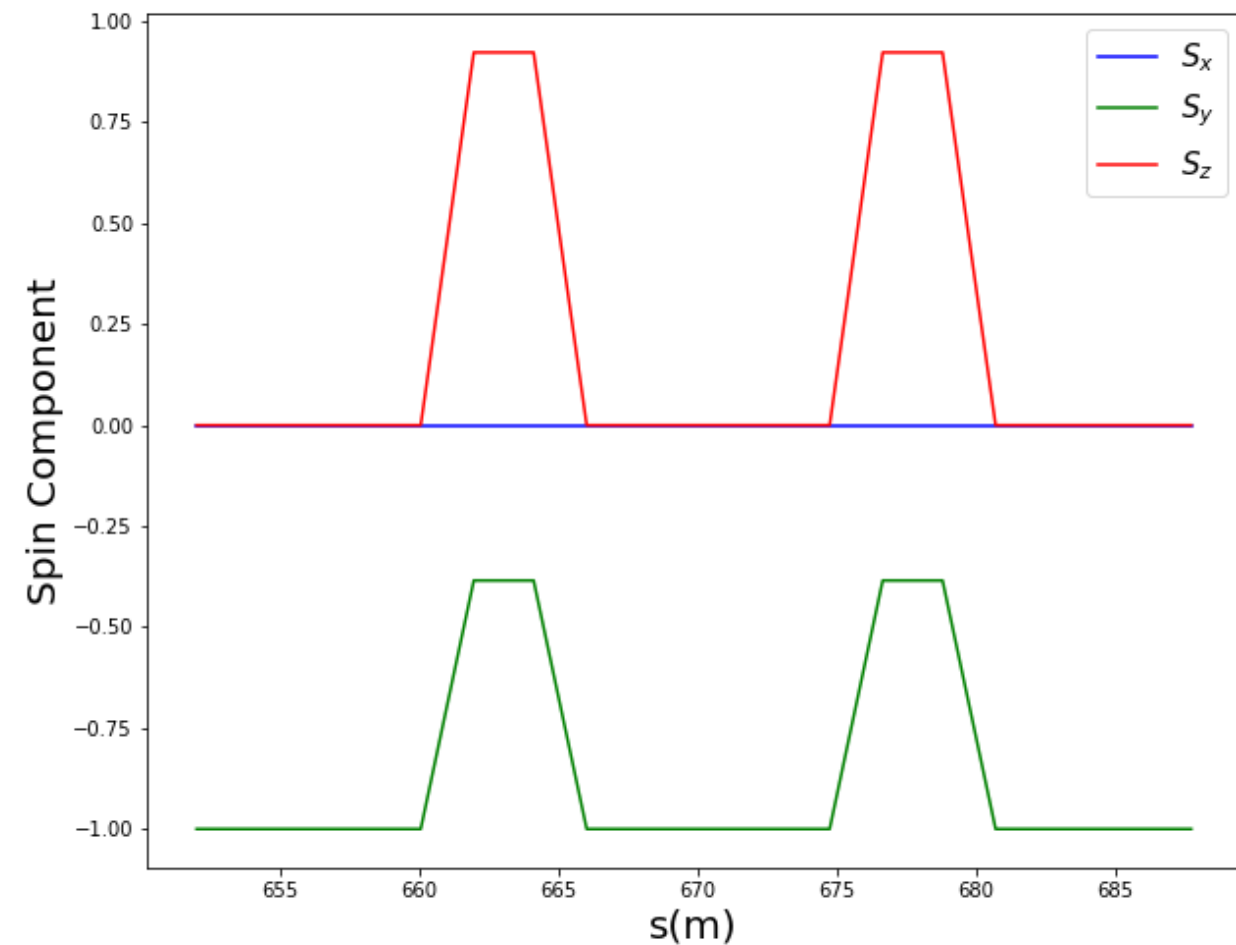
- vertical bends
- Lcavity



LINAC Polarization



LINAC Polarization



LINAC Vertical Bends



Index	name	key	s(m)	l(m)	REF_TILT_TOT	B_field	floor.y	spin.x	spin.y	spin.z	
0	3499	BV1UE	Sbend	661.981	1.906	-1.5708	-0.90687	0.070517	-5.656700e-16	0.38464	-9.230700e-01
1	3505	BV1DE	Sbend	666.036	1.906	1.5708	-0.90687	0.300000	-4.302700e-16	1.00000	7.612600e-16
2	3538	BV1UE	Sbend	676.670	1.906	-1.5708	-0.90687	0.370520	1.266100e-15	0.38464	-9.230700e-01
3	3544	BV1DE	Sbend	680.726	1.906	1.5708	-0.90687	0.600010	1.398400e-15	1.00000	-1.354100e-17
4	4134	BV2UE	Sbend	1006.619	1.906	-1.5708	-0.91564	0.671210	2.237800e-15	0.37411	-9.273800e-01
5	4139	BV2UE	Sbend	1008.875	1.906	-1.5708	-0.91564	0.910540	2.627600e-15	-0.72008	-6.938900e-01
6	4219	BV2DE	Sbend	1052.333	1.906	1.5708	-0.91564	7.312200	2.435100e-15	0.37411	-9.273800e-01
7	4224	BV2DE	Sbend	1054.589	1.906	1.5708	-0.91564	7.409500	2.182700e-15	1.00000	-4.510300e-16

Long Term Tracking

- Starting work on LTT with inverted spin
- Did a quick validation test with the LINAC: Spin is preserved
- Job takes over a day to run with HER (100 particles at 20,000 turns)
 - Unfortunately I ran a job but accidentally only recorded the end and beginning points... spin was well-preserved for every particle (no particles lost)