

Polarimetry $n_3\text{He}$ Experiment

5-20-2015

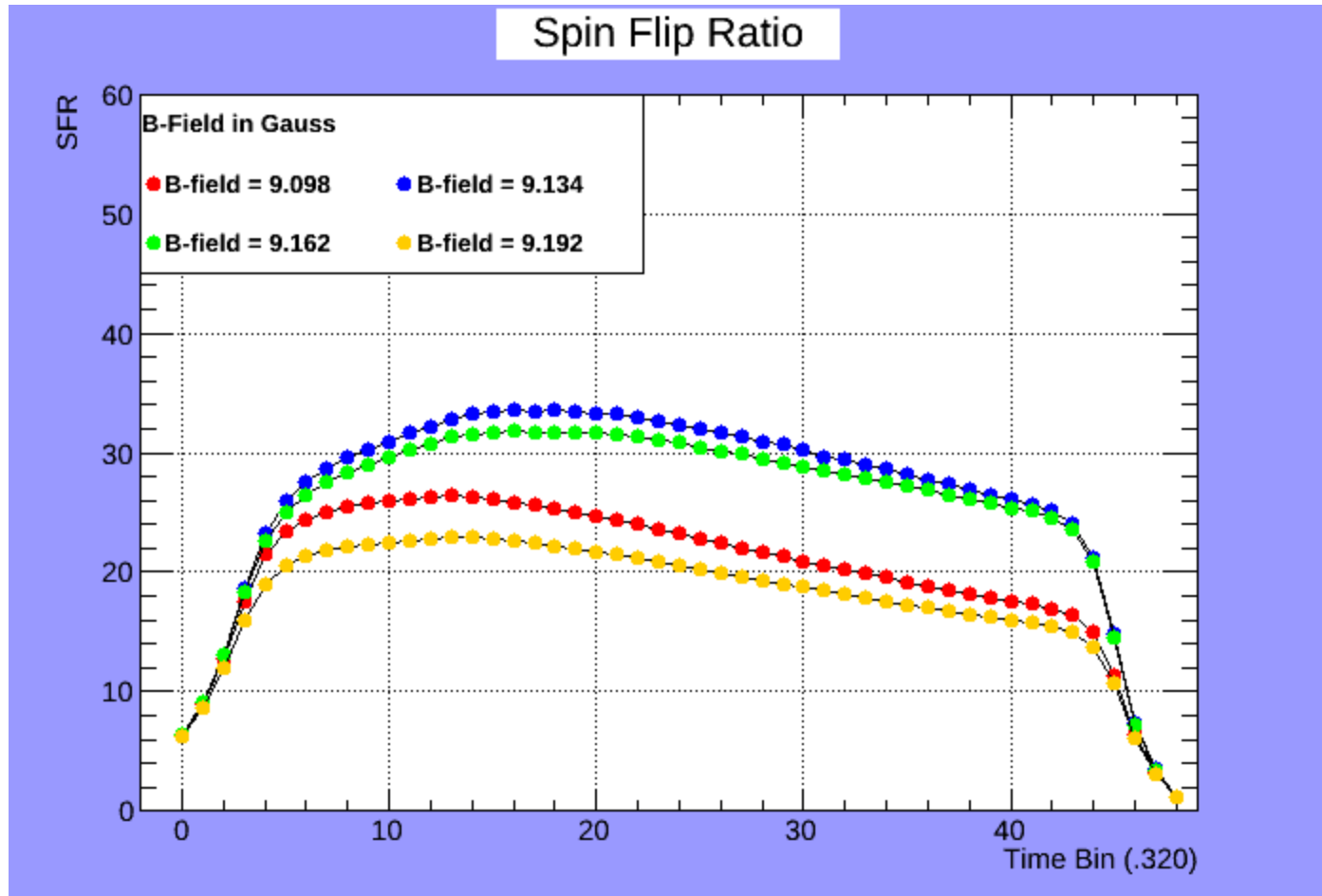
Data Runs

5-20 Polarimetry includes extra data for analysis of SF efficiency versus changes in spin flipper voltage applied by AWG 3022. For details of this analysis see Mr. C. Gautam

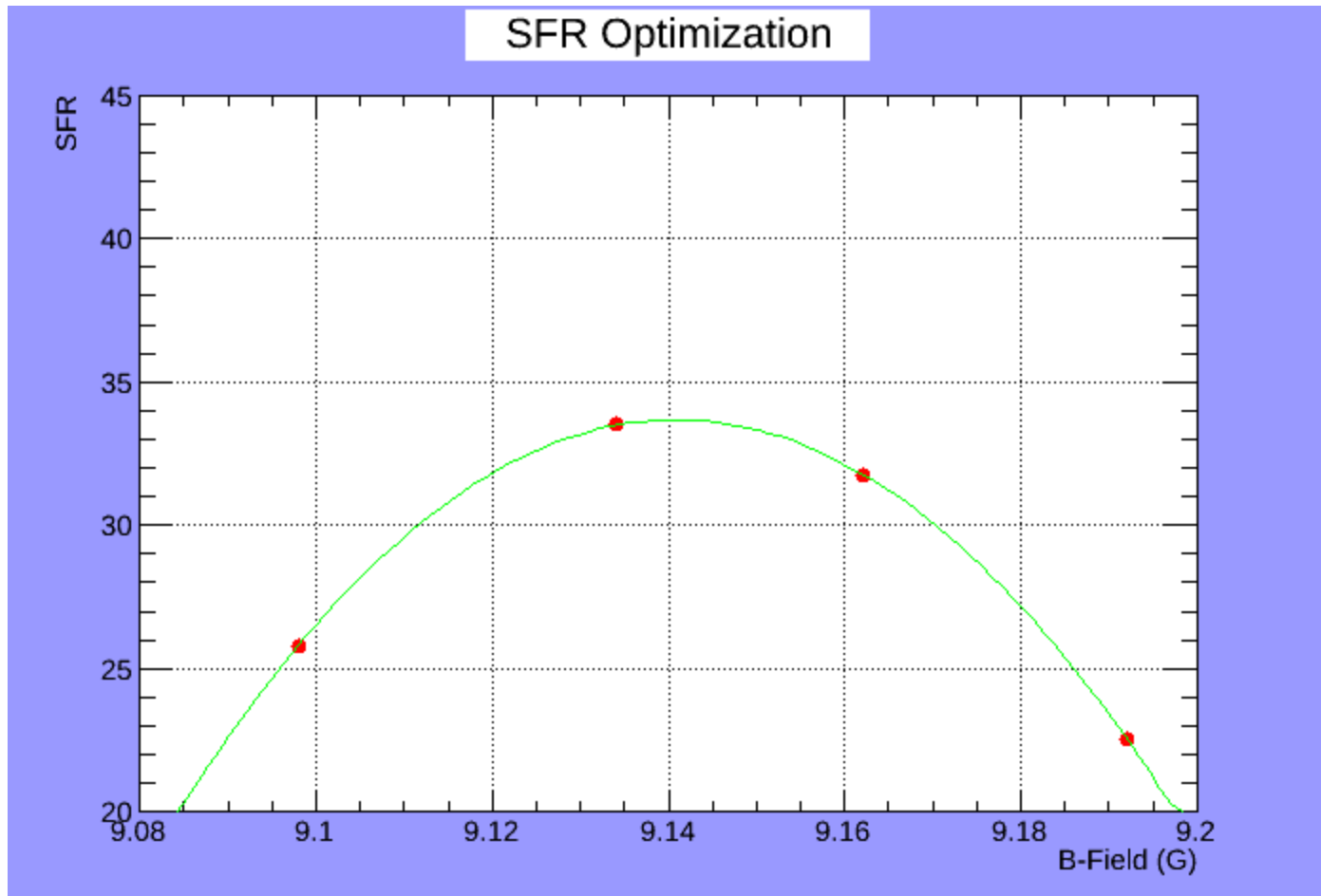
[illegible]

					AFP FLIP				
5/20/2015	17	486	9.137		31304-31306	Polarized Cell	dn		
5/20/2015	18	386	9.137		31307-31309	Polarized Cell	dn		
5/20/2015	19	286	9.137		31310-31312	Polarized Cell	dn		
5/20/2015	20	586	9.137		31313-31315	Polarized Cell	dn		
5/20/2015	21	686	9.137		31316-31318	Polarized Cell	dn		
5/20/2015	22	476	9.137		31319-31321	Polarized Cell	dn		
5/20/2015	23	466	9.137		31322-31324	Polarized Cell	dn		
5/20/2015	24	456	9.137		31325-31327	Polarized Cell	dn		
5/20/2015	25	496	9.137		31328-31330	Polarized Cell	dn		
5/20/2015	26	506	9.137		31331-31334	Polarized Cell	dn		
5/20/2015	27	516	9.137		31335-31337	Polarized Cell	dn		
5/20/2015									
					AFP FLIP				
5/20/2015	17	486	9.137		31338-31340	Polarized Cell	up		
5/20/2015	18	386	9.137		31341-31343	Polarized Cell	up		
5/20/2015	19	286	9.137		31344-31346	Polarized Cell	up		
5/20/2015	20	586	9.137		31347-31349	Polarized Cell	up		
5/20/2015	21	686	9.137		31350-31352	Polarized Cell	up		
5/20/2015	22	476	9.137		31353-31355	Polarized Cell	up		
5/20/2015	23	466	9.137		31356-31358	Polarized Cell	up		31357 is bad
5/20/2015	24	456	9.137		31359-31361	Polarized Cell	up		31360 is bad
5/20/2015	25	496	9.137		31362-31364	Polarized Cell	up		31363 is bad
5/20/2015	26	506	9.137		31365-31367	Polarized Cell	up		
5/20/2015	27	516	9.137		31368-31370	Polarized Cell	up		31368 is bad
5/20/2015									
					31371-31373	Pedestal			
5/20/2015	20	486			31374-31376	De-polarized Cell	n/a		
	End								

Guide Field Optimization



Guide Field Optimization



Optimization Data

31266	9.098	25.803131258
31258	9.134	33.514431261
31261	9.162	31.758231267
31267	9.192	22.5652

Minimizer is Minuit / MigradChi2 =
0.00254618

NDf = 1Edm =
5.44135e-11

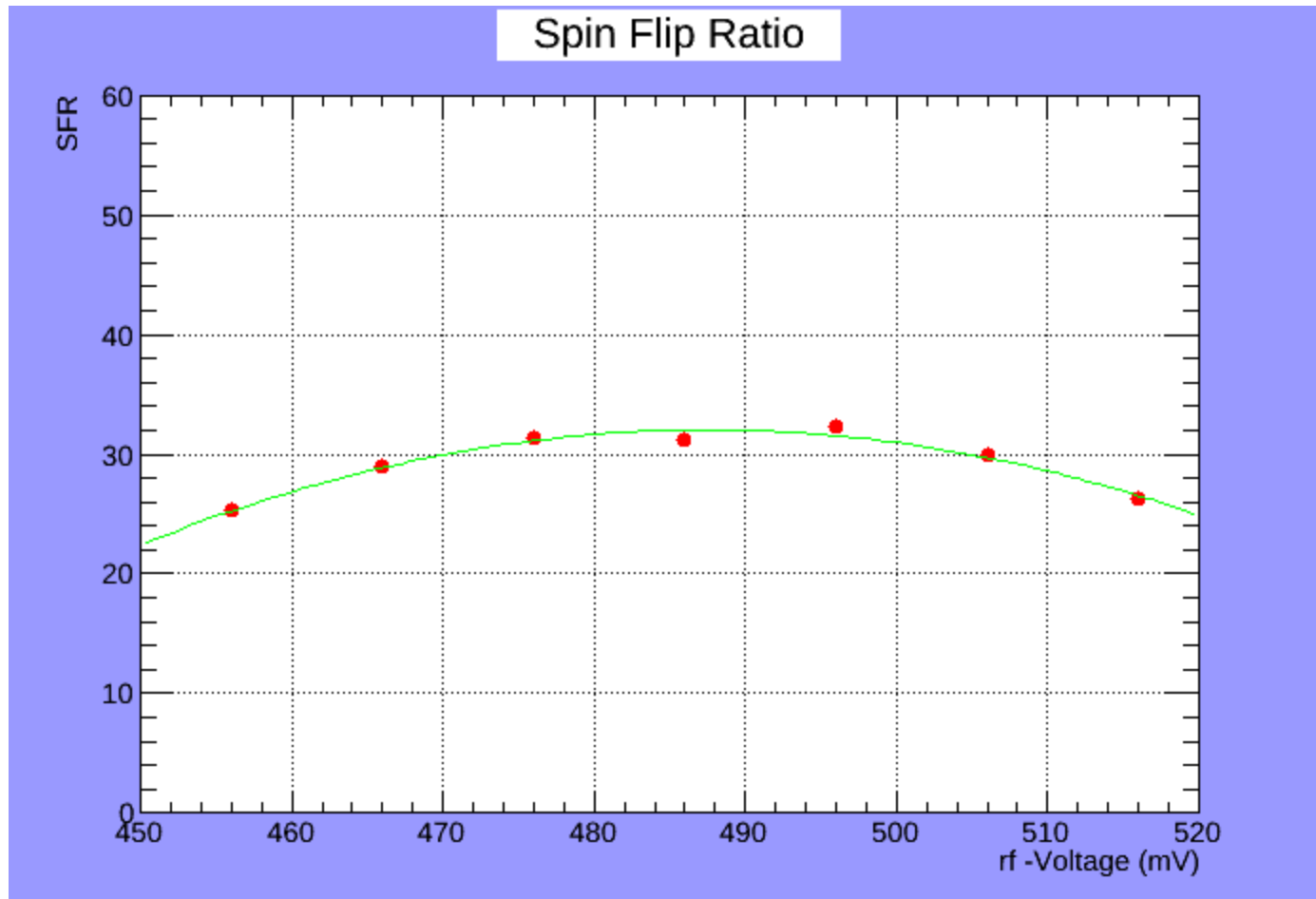
NCalls = 207

coefficient = 4270.86 +/- 25.1387

best_fit = 9.14094 +/- 8.77726e-05

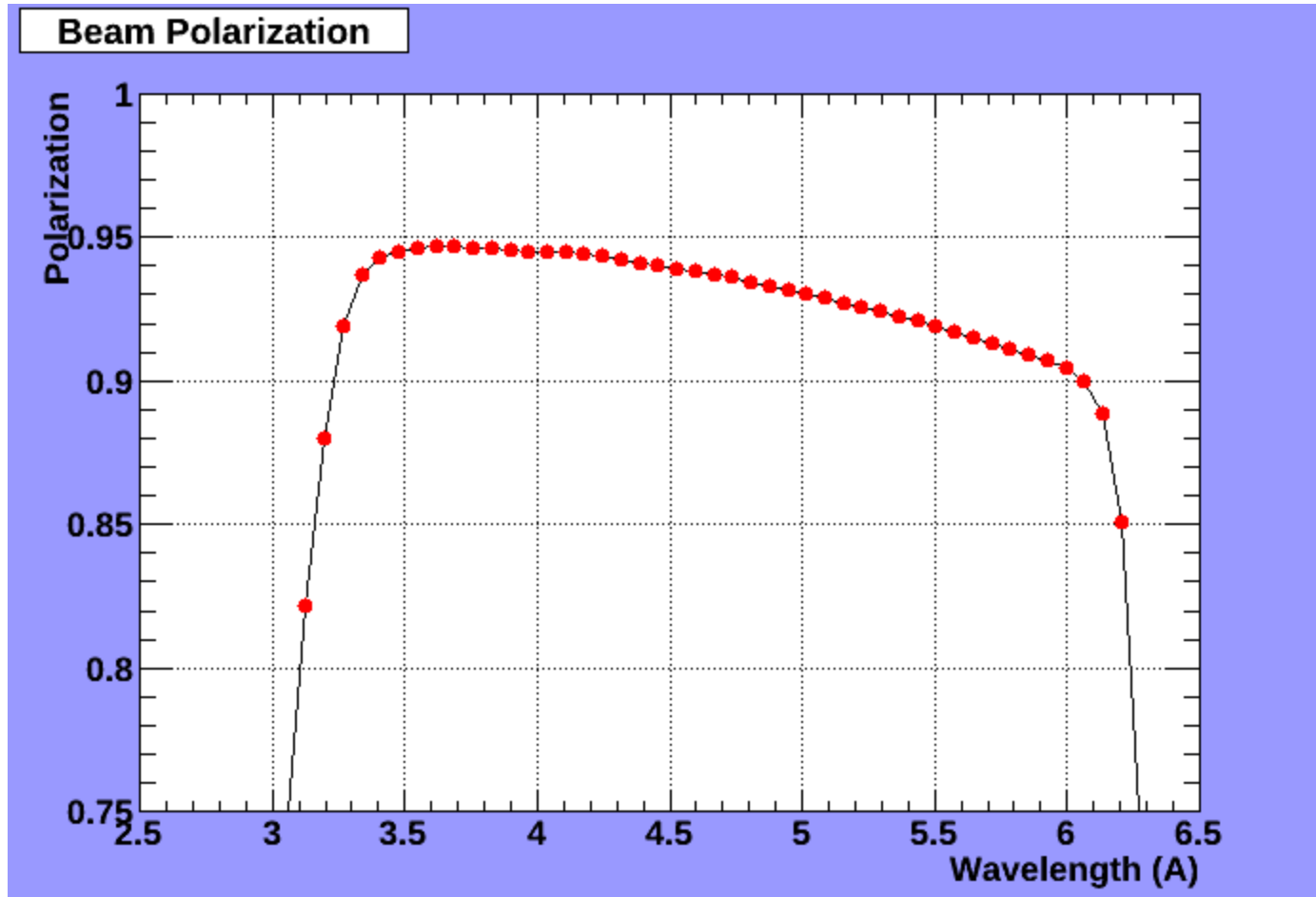
best_sfr = 33.6876 +/- 0.0394151

SFR versus RF -Voltage



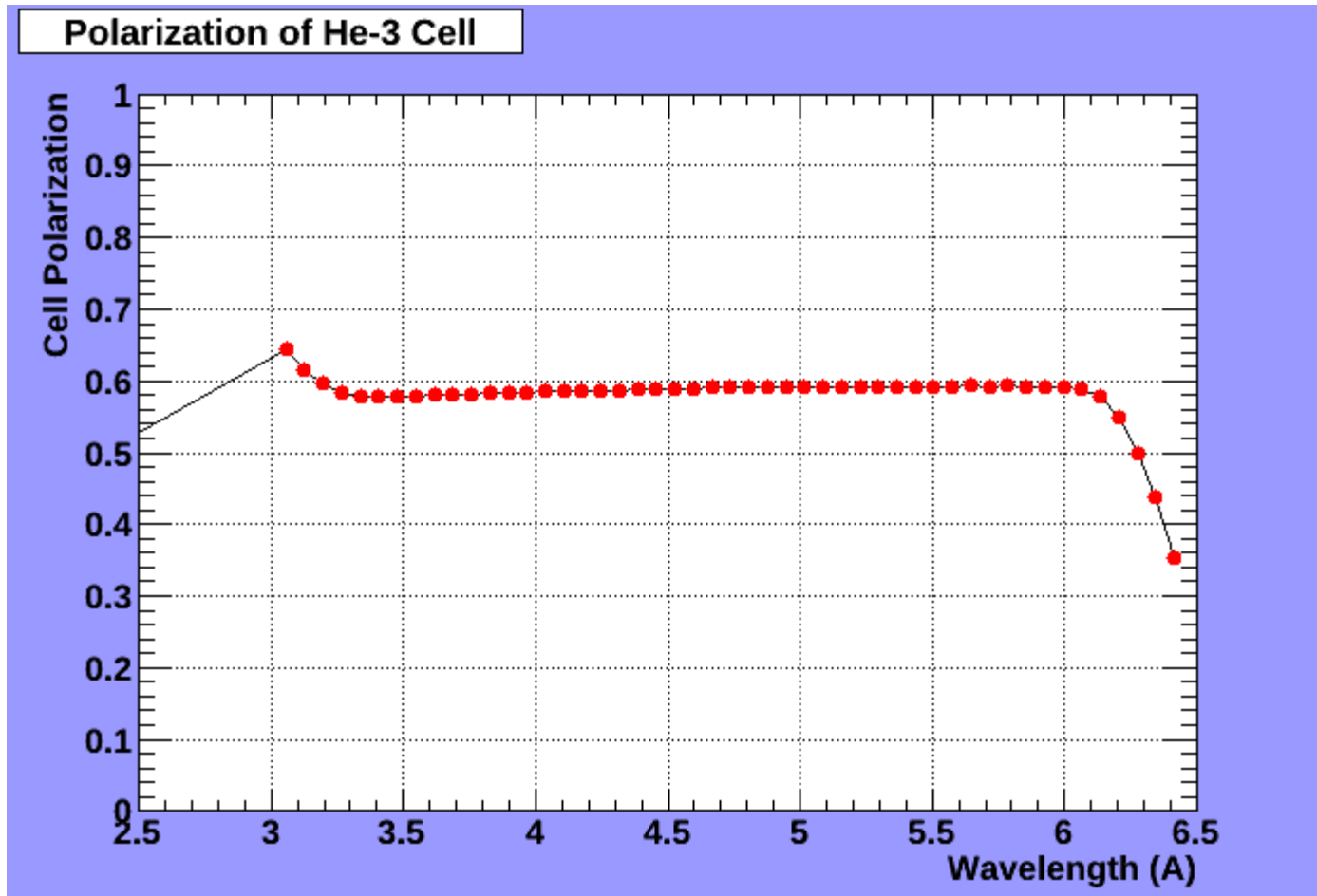
Data runs: 31292, 31289, 31286, 31270, 31295, 31298, 31301

Beam Polarization



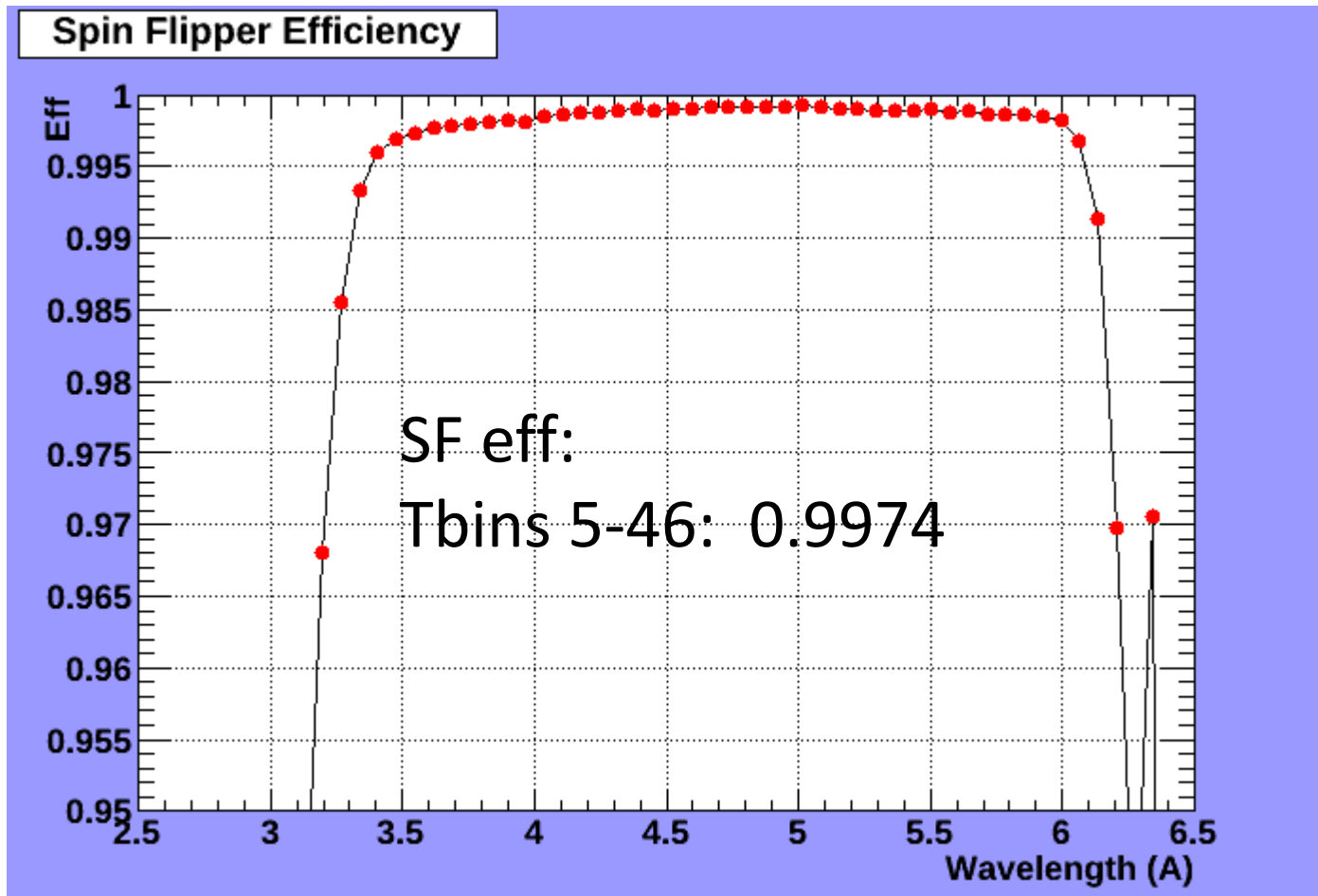
dihep.cc(31270, 31374, 31371)

Cell Polarization



dihep.cc(31270, 31374, 31371)

Spin Flipper Efficiency



dirfsf.cc(31270, 31304, 31338, 31371)