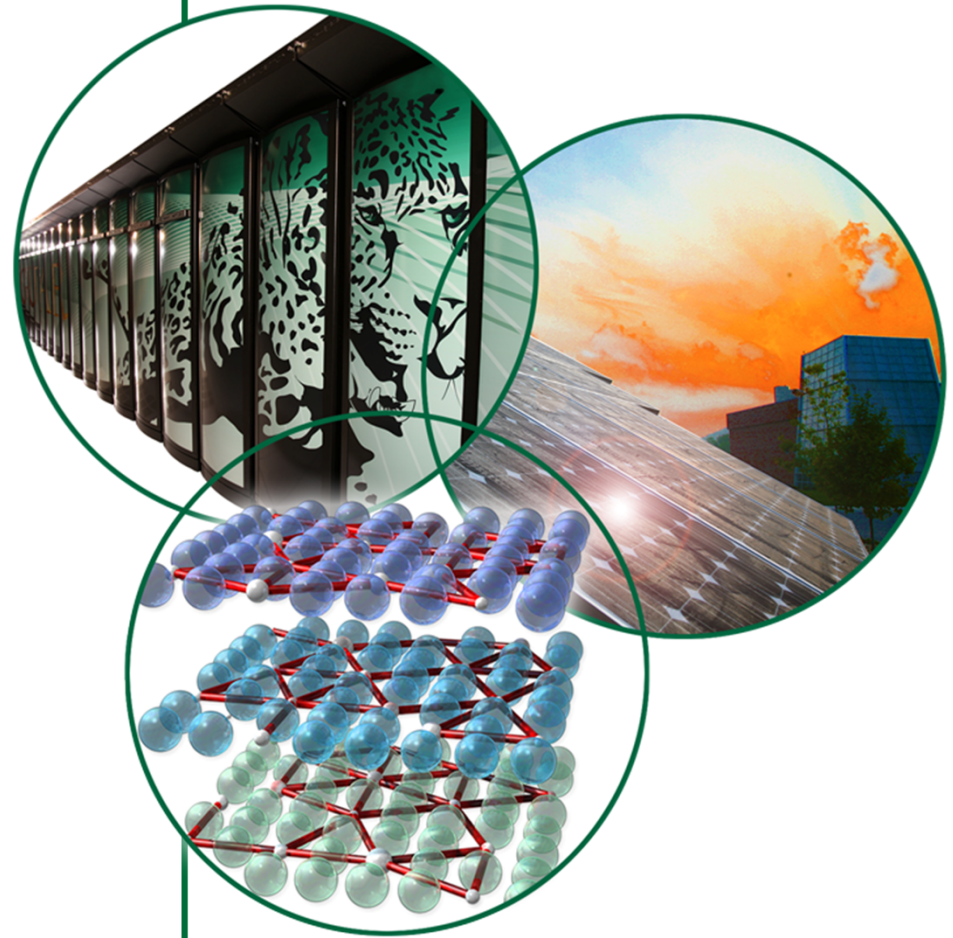


# IDS120f Field Contours

Van Graves

IDS Phone Conference

Feb 22, 2011



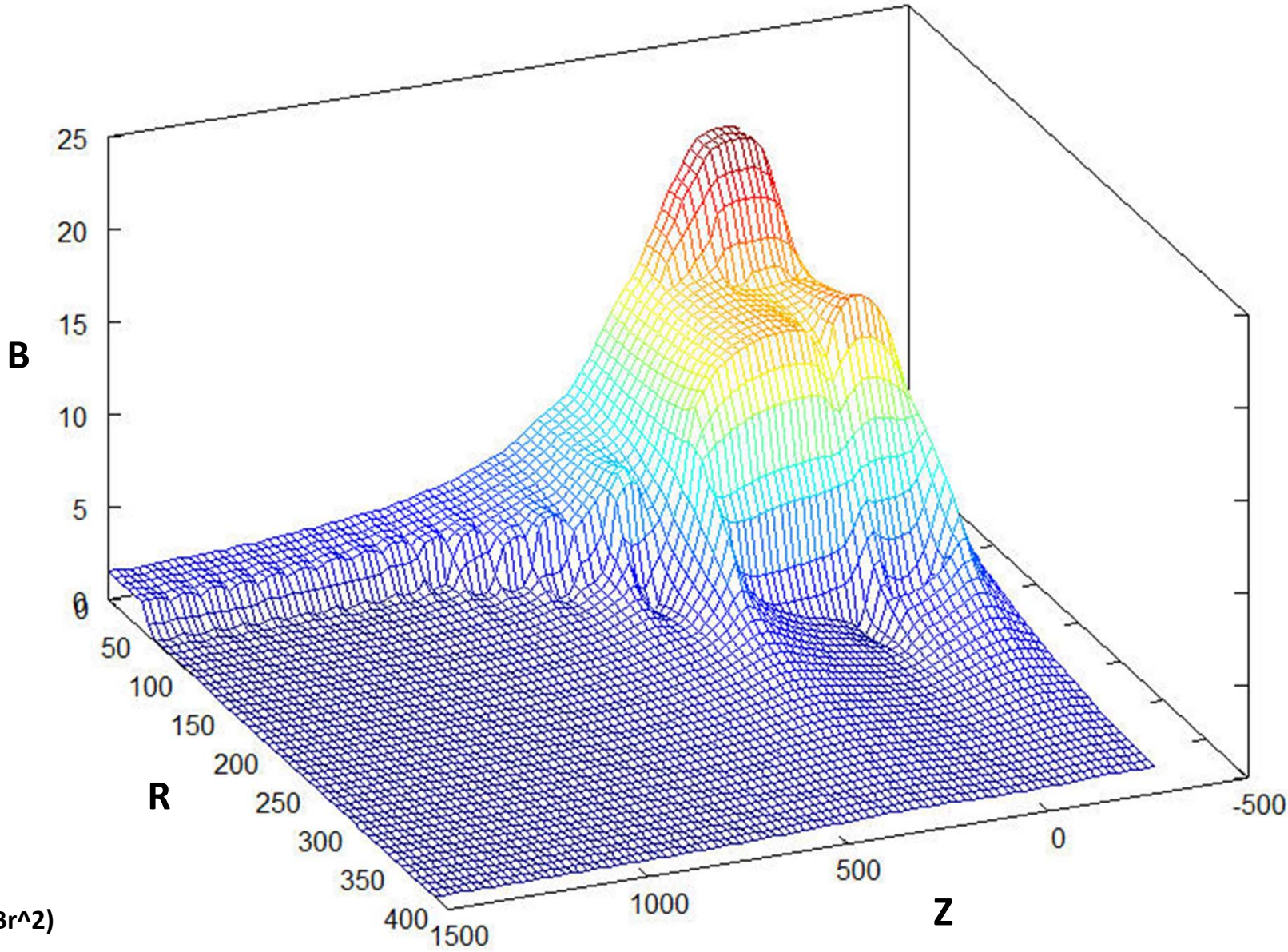
# IDS120f Data File

- Magnetic field files consist of B components (Bz, Br) at various location of Z & R
- Locations are in a rectangular grid arrangement (columns at various Z positions)

I	J	Z	R	Bz	Br
1	1	-300.000	0.000	5.173	0.000
1	2	-300.000	7.834	5.167	-0.178
1	3	-300.000	15.668	5.150	-0.355
1	4	-300.000	23.502	5.122	-0.533
1	5	-300.000	31.336	5.083	-0.710
1	6	-300.000	39.170	5.031	-0.887
1	7	-300.000	47.004	4.966	-1.063
1	8	-300.000	54.838	4.887	-1.238
1	9	-300.000	62.672	4.794	-1.411
1	10	-300.000	70.506	4.686	-1.582
1	11	-300.000	78.340	4.562	-1.748
1	12	-300.000	86.174	4.420	-1.909
1	13	-300.000	94.008	4.261	-2.063
1	14	-300.000	101.842	4.085	-2.206
1	15	-300.000	109.676	3.891	-2.338
1	16	-300.000	117.510	3.680	-2.454
1	17	-300.000	125.344	3.454	-2.552
1	18	-300.000	133.178	3.217	-2.630
1	19	-300.000	141.012	2.970	-2.685
1	20	-300.000	148.846	2.718	-2.717
1	21	-300.000	156.680	2.465	-2.725
1	22	-300.000	164.514	2.215	-2.710
1	23	-300.000	172.348	1.972	-2.672
1	24	-300.000	180.182	1.740	-2.615
1	25	-300.000	188.016	1.523	-2.540
1	26	-300.000	195.850	1.321	-2.451
1	27	-300.000	203.684	1.138	-2.351
1	28	-300.000	211.518	0.973	-2.244
1	29	-300.000	219.352	0.826	-2.133
1	30	-300.000	227.186	0.697	-2.021
1	31	-300.000	235.020	0.584	-1.910
1	32	-300.000	242.854	0.487	-1.801
1	33	-300.000	250.688	0.402	-1.696
1	34	-300.000	258.522	0.329	-1.596
1	35	-300.000	266.356	0.267	-1.501
1	36	-300.000	274.190	0.213	-1.411
1	37	-300.000	282.024	0.167	-1.327
1	38	-300.000	289.858	0.128	-1.248
1	39	-300.000	297.692	0.094	-1.175
1	40	-300.000	305.526	0.065	-1.106
1	41	-300.000	313.360	0.040	-1.042
1	42	-300.000	321.194	0.019	-0.982
1	43	-300.000	329.028	0.001	-0.926
1	44	-300.000	336.862	-0.014	-0.874
1	45	-300.000	344.696	-0.027	-0.826
1	46	-300.000	352.530	-0.039	-0.781
1	47	-300.000	360.364	-0.048	-0.739
1	48	-300.000	368.198	-0.056	-0.700
1	49	-300.000	376.032	-0.063	-0.663
1	50	-300.000	383.866	-0.069	-0.629
2	1	-281.818	0.000	6.056	0.000
2	2	-281.818	7.834	6.051	-0.203
2	3	-281.818	15.668	6.035	-0.406
2	4	-281.818	23.502	6.008	-0.611
2	5	-281.818	31.336	5.970	-0.816

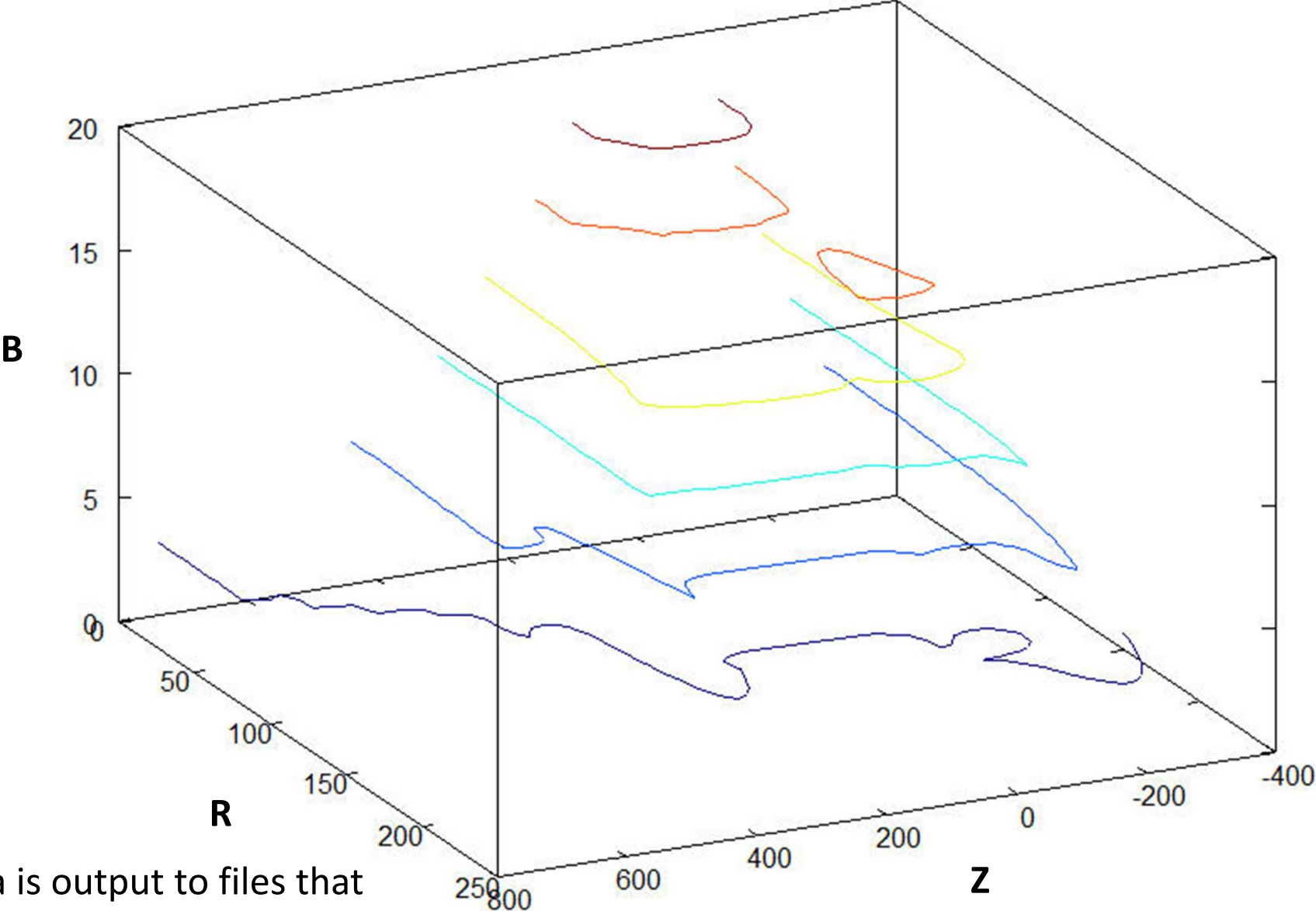


# IDS120f Field Mesh Plot



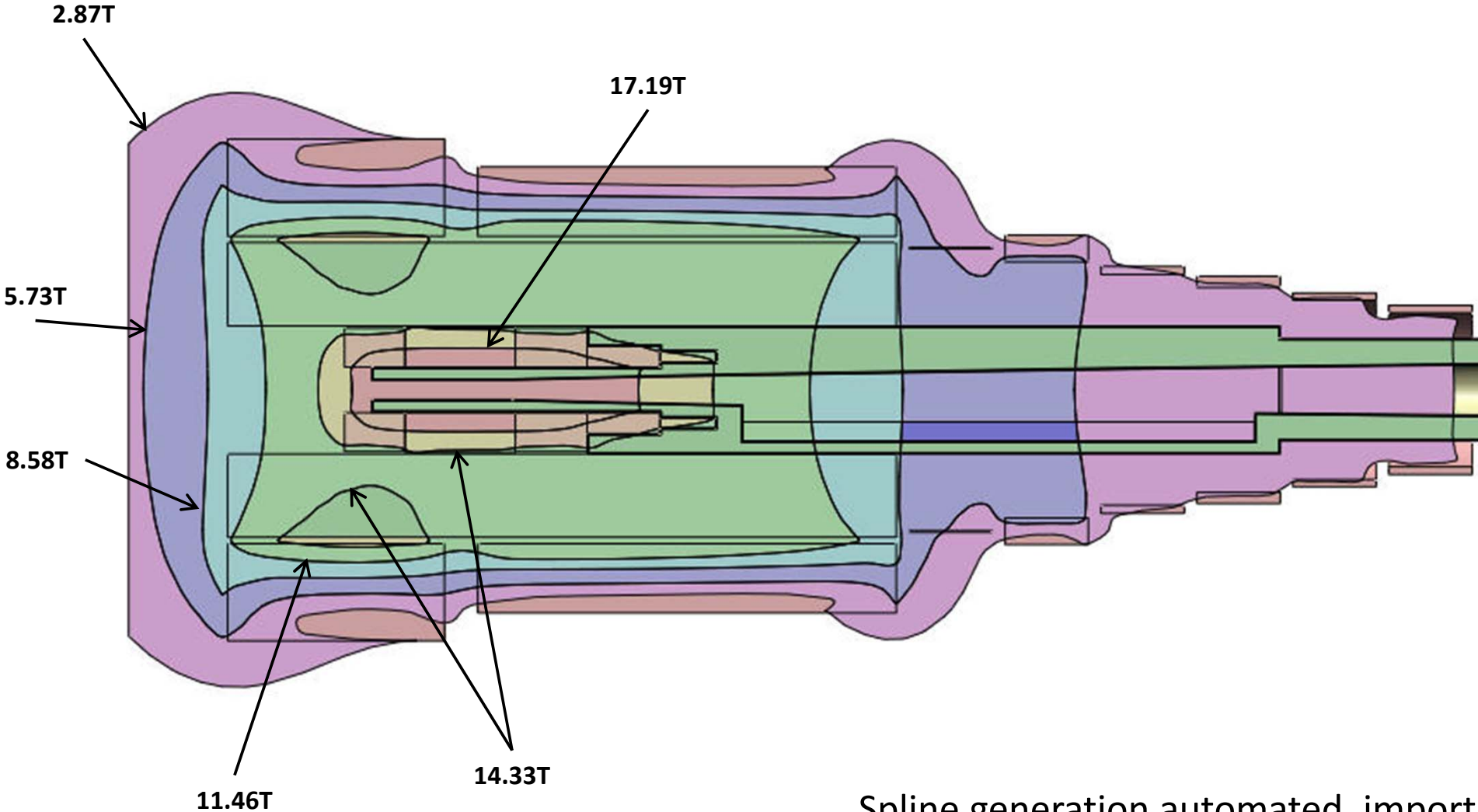
$$B = \sqrt{B_z^2 + B_r^2}$$

# IDS120f Contour Plot



Spline data is output to files that SolidWorks can read

# IDS120f Field Contours



Spline generation automated, import into CAD system still requires manual effort