R0	94cm	
A0	26cm	
XE0	1.55	
XE1	1.10	
XD0	0.18	
BT0	9100G	
XL0	0.03	
BETAP0	2.25	
F0	4.28E+06	
E0	1.54	
E1	1.10	
D0	0.046	

(BETAP0 and F0 are in the units as used in original VMOMS)

Numbers in black are data from Lao et al (1982) CPC paper. Please note that all data is available up to 4 digits only.

Numbers in blue are relative errors compared with my code's run.

Numbers in red are maximum relative errors in that category.

X	R0	R0P	R0PP	E0	E0P	E0PP	D0	D0P	D0PP
0.03	3.736E+00	-6.000E-06	-7.439E-01	1.386E+00	6.000E-06	1.354E+00	9.219E-06	1.229E-03	7.643E-02
0.14	3.734E+00	-2.596E-02	-1.961E-01	1.388E+00	2.346E-02	1.714E-01	3.538E-04	5.217E-03	3.874E-02
0.25	3.730E+00	-4.798E-02	-2.155E-01	1.391E+00	4.330E-02	1.958E-01	1.151E-03	9.692E-03	4.452E-02
0.35	3.724E+00	-7.300E-02	-2.521E-01	1.397E+00	6.615E-02	2.316E-01	2.471E-03	1.500E-02	5.492E-02
0.46	3.714E+00	-1.032E-01	-3.129E-01	1.406E+00	9.405E-02	2.910E-01	4.438E-03	2.183E-02	7.361E-02
0.57	3.701E+00	-1.418E-01	-4.132E-01	1.418E+00	1.303E-01	3.894E-01	7.274E-03	3.143E-02	1.083E-01
0.68	3.683E+00	-1.947E-01	-5.842E-01	1.434E+00	1.806E-01	5.610E-01	1.140E-02	4.637E-02	1.770E-01
0.78	3.658E+00	-2.727E-01	-8.947E-01	1.458E+00	2.568E-01	8.946E-01	1.766E-02	7.237E-02	3.255E-01
0.89	3.623E+00	-3.984E-01	-1.515E+00	1.492E+00	3.886E-01	1.674E+00	2.789E-02	1.238E-01	6.827E-01
1	3.570E+00	-6.244E-01	-2.869E+00	1.544E+00	6.510E-01	3.759E+00	4.555E-02	2.358E-01	1.566E+00

Relative Errors									
	0.00E+00	0.00E+00	2.42E-03	0.00E+00	0.00E+00	2.93E-01	2.89E-01	3.56E-01	8.76E-01
	0.00E+00	1.93E-03	3.06E-03	7.20E-04	1.02E-02	2.10E-02	2.26E-02	2.53E-02	1.47E-02
	2.68E-04	2.29E-03	2.78E-03	0.00E+00	6.93E-03	7.15E-03	2.35E-02	2.39E-02	2.02E-02
	0.00E+00	2.33E-03	2.78E-03	0.00E+00	6.80E-03	7.77E-03	2.31E-02	2.33E-02	2.09E-02
	2.69E-04	2.91E-03	3.20E-03	7.11E-04	7.44E-03	9.28E-03	2.30E-02	2.24E-02	2.01E-02
	2.70E-04	1.41E-03	3.39E-03	7.05E-04	7.67E-03	1.18E-02	2.08E-02	2.00E-02	1.75E-02
	2.72E-04	3.60E-03	4.62E-03	0.00E+00	1.05E-02	1.59E-02	2.19E-02	2.24E-02	1.75E-02
	2.73E-04	3.67E-03	5.03E-03	6.86E-04	1.25E-02	2.12E-02	2.15E-02	1.95E-02	1.94E-02
	0.00E+00	5.27E-03	9.90E-03	1.34E-03	1.83E-02	3.76E-02	2.19E-02	2.18E-02	2.72E-02
	0.00E+00	5.45E-03	1.12E-02	0.00E+00	8.29E-03	4.31E-02	0.00E+00	1.36E-02	3.00E-02

X	P-HAT	PP-HAT	I-HAT	IP-HAT
0.03	0.9991	-0.06	0.001799	0.1199
0.14	0.981	-0.2756	0.03761	0.5407
0.25	0.9397	-0.4911	0.117	0.923
0.35	0.8752	-0.7067	0.2341	1.237
0.46	0.7874	-0.9222	0.38	1.452
0.57	0.6764	-1.138	0.5425	1.539
0.68	0.5421	-1.353	0.7061	1.467
0.78	0.3846	-1.569	0.852	1.207
0.89	0.2039	-1.784	0.9584	0.7279
1	0	-2	1	0.0003943

Relative Errors	0	0	5.56E-04	0
	0.00E+00	0.00E+00	2.66E-04	0.00E+00
	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	1.14E-04	0.00E+00	0.00E+00	8.08E-05
	0.00E+00	0.00E+00	0.00E+00	2.07E-04
	2.96E-04	0.00E+00	3.69E-04	6.50E-05
	3.69E-04	0.00E+00	2.83E-04	4.09E-04
	0.00E+00	0.00E+00	1.17E-04	2.49E-04
	1.96E-03	0.00E+00	2.09E-04	1.65E-03
	0.00E+00	0.00E+00	0.00E+00	1.00E+00

My value is 0, making this 1

X	Q	JFLUX	PSI/PSI0	F/F0	FFP/F0^2	JMDPL(IN)	JMDPL(OUT)
0.03	1.121	4.072E+11	4.403E-03	1.001E+00	-2.950E-03	4.078E+11	4.066E+11
0.14	1.135	3.990E+11	2.883E-02	9.998E-01	-1.286E-02	4.014E+11	3.968E+11
0.25	1.168	3.802E+11	8.377E-02	9.980E-01	-2.018E-02	3.829E+11	3.782E+11
0.35	1.226	3.511E+11	1.672E-01	9.957E-01	-2.321E-02	3.514E+11	3.523E+11
0.46	1.314	3.118E+11	2.758E-01	9.933E-01	-2.074E-02	3.056E+11	3.208E+11
0.57	1.446	2.629E+11	4.054E-01	9.915E-01	-1.233E-02	2.448E+11	2.859E+11
0.68	1.648	2.052E+11	5.503E-01	9.909E-01	1.560E-03	1.683E+11	2.508E+11
0.78	1.972	1.399E+11	7.040E-01	9.921E-01	1.929E-02	7.654E+10	2.204E+11
0.89	2.549E+00	6.971E+10	8.578E-01	9.951E-01	3.779E-02	-2.853E+10	2.046E+11
1.00	3.816E+00	3.037E+07	1.000E+00	1.000E+00	5.201E-02	-1.417E+11	2.293E+11

Relative Errors	8.92E-04	2.46E-04	7.22E-01	0.00E+00	1.02E-03	2.45E-04	2.46E-04
	8.81E-04	2.51E-04	1.09E-01	2.00E-04	7.78E-04	2.49E-04	2.52E-04
	0.00E+00	2.63E-04	3.66E-02	2.00E-04	9.91E-04	5.22E-04	2.64E-04
	8.16E-04	2.85E-04	1.79E-02	1.00E-04	1.29E-03	2.85E-04	2.84E-04
	7.61E-04	3.21E-04	1.02E-02	1.01E-04	1.93E-03	6.54E-04	3.12E-04
	6.92E-04	3.80E-04	5.92E-03	0.00E+00	1.62E-03	4.08E-04	3.50E-04
	1.82E-03	9.75E-04	4.36E-03	0.00E+00	3.91E-02	2.38E-03	3.99E-04

	2.03E-03	1.43E-03	2.56E-03	1.01E-04	5.18E-04	1.57E-03	0.00E+00
	3.53E-03	4.45E-03	8.63E-03	0.00E+00	1.06E-03	9.81E-03	0.00E+00
	1.83E-03	1.00E+00	0.00E+00	0.00E+00	5.77E-04	1.41E-03	0.00E+00

X	GSQRT	GTTGS	GSGPP	GRHO	ARIF	AR2IF
0.03	1.554E-01	8.463E-03	1.113E-02	7.602E-01	2.677E-01	7.166E-02
0.14	7.144E-01	3.888E-02	5.132E-02	7.590E-01	2.679E-01	7.184E-02
0.25	1.277E+00	6.938E-02	9.228E-02	7.565E-01	2.685E-01	7.226E-02
0.35	1.847E+00	1.000E-01	1.347E-01	7.524E-01	2.695E-01	7.295E-02
0.46	2.428E+00	1.308E-01	1.796E-01	7.466E-01	2.710E-01	7.398E-02
0.57	3.028E+00	1.619E-01	2.285E-01	7.391E-01	2.731E-01	7.546E-02
0.68	3.657E+00	1.935E-01	2.838E-01	7.303E-01	2.763E-01	7.760E-02
0.78	4.336E+00	2.261E-01	3.502E-01	7.216E-01	2.811E-01	8.077E-02
0.89	5.107E+00	2.620E-01	4.381E-01	7.177E-01	2.888E-01	8.578E-02
1	6.070E+00	3.114E-01	5.730E-01	7.413E-01	3.023E-01	9.441E-02

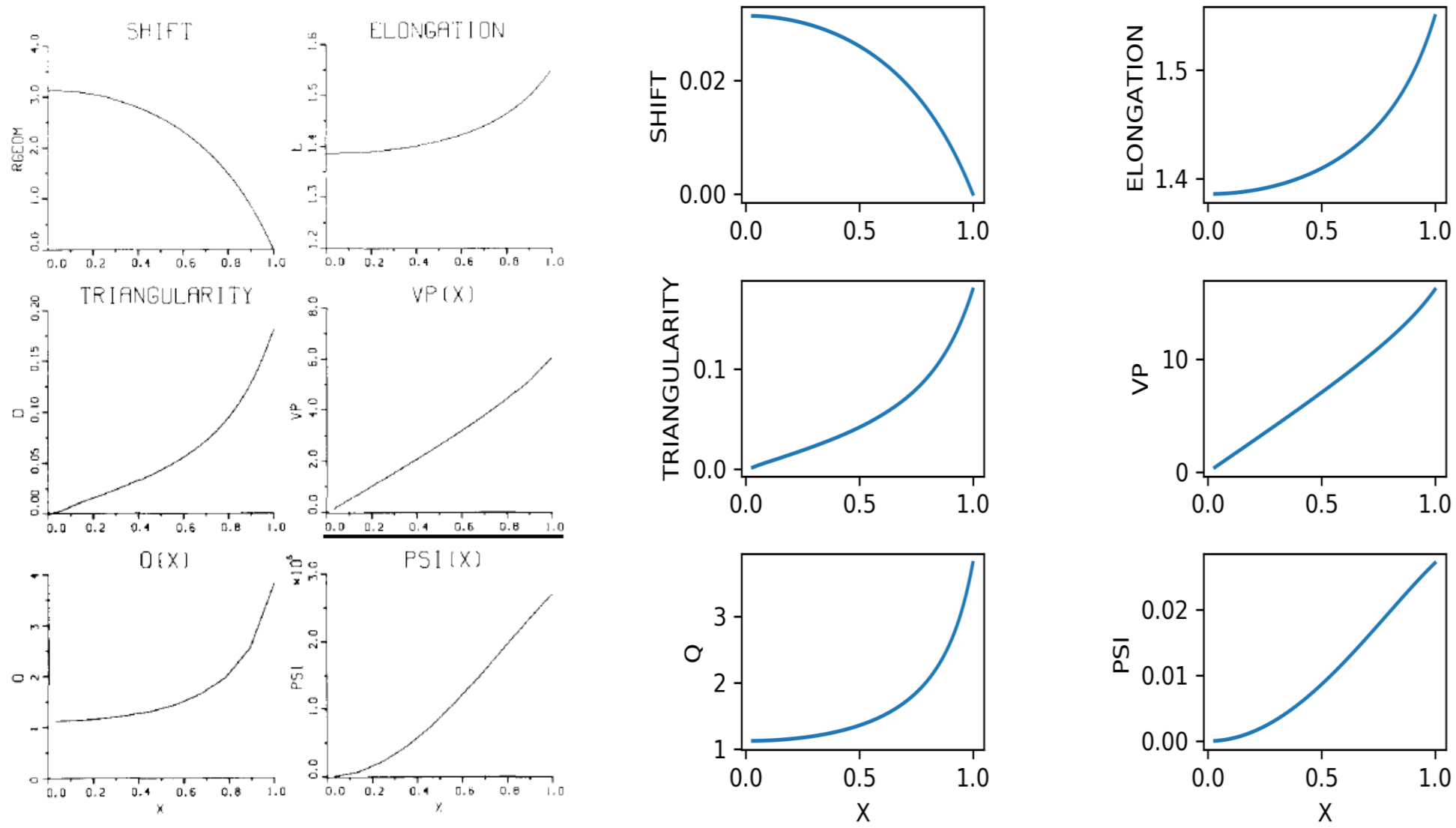| Relative Errors	6.44E-04	1.18E-04	0.00E+00	1.32E-04	0.00E+00	2.79E-04
	0.00E+00	0.00E+00	1.95E-04	2.64E-04	0.00E+00	2.78E-04
	0.00E+00	1.44E-04	4.33E-04	1.32E-04	0.00E+00	2.77E-04
	0.00E+00	1.00E-04	0.00E+00	2.66E-04	3.71E-04	2.74E-04
	0.00E+00	0.00E+00	5.57E-04	2.68E-04	3.69E-04	2.70E-04
	0.00E+00	0.00E+00	4.38E-04	5.41E-04	0.00E+00	2.65E-04
	8.20E-04	5.17E-04	1.41E-03	8.22E-04	3.62E-04	5.15E-04
	9.23E-04	0.00E+00	1.43E-03	1.25E-03	3.56E-04	4.95E-04
	2.35E-03	0.00E+00	3.20E-03	2.37E-03	3.46E-04	8.16E-04
	9.88E-04	3.21E-04	1.40E-03	2.70E-04	3.31E-04	6.36E-04

INPUT PRESSURE AND CURRENT PROFILES:

$\hat{P}(x) = 1 - x^2$

$\hat{P}'(x) = -2x$

$P_0 = 1.32 \times 10^{17} \, ev \cdot cm^{-3}$

$\hat{I}(x) = x^2(2 - x^2)$

$\hat{I}'(x) = 4x(1 - x^2)$

$I_0 = 2.0 \times 10^5 \, A$

SHIFT ELONGATION TRIANGULARITY VP(X) Q(X) PSI(X)

LHS from Lao's paper and RHS from my code.

Units on LHS are in CGS and on RHS are SI, so that's why differences in SHIFT and PSI.

Not sure why there's a mismatch in VP, maybe it's not derivative of volume?