Triangle Cavity Flow

Sebastian Gjertsen

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Results)

First I considered an equilateral Triangle with corner points:
a = (-$\sqrt{}$(3), 1), b = ($\sqrt{}$(3), 1) ,c = (0, -2)

Where the Reynolds number is defined as $Re = \frac{U}{\mu}$, where i set $U = 1$ and controlled Re by changing μ
This study was done with 73541 vertices and 145664 cells

	Erturk and Gockol			Me		
Re	ψ	ω	(x,y)	ψ	ω	(x,y)
1	-0.2329	-1.3788	(0.0101, 04668)	-0.2329	-1.3658	(0.0109, 0.4617)
50	-0.2369	-1.4689	(0.3484, 04434)	-0.2367	-1.4708	(0.3525, 0.4467)
100	-0.2482	-1.3669	(0.3315, 0.3555)	-0.2476	-1.3599	(0.3339, 0.3576)
200	-0.2624	-1.2518	(0.2030, 0.2734)	-0.2613	-1.2459	(0.1978, 0.2758)
350	-0.2724	-1.1985	(0.1556, 0.2383)	-0.2708	-1.1887	(0.1605, 0.2412)
500	-0.2774	-1.1791	(0.1319, 0.2207)	-0.2754	-1.1666	(0.1395, 0.2237)
750	-0.2818	-1.1668	(0.1150, 0.2031)	-0.2793	-1.1504	(0.1160, 0.2056)
1000	-0.2844	-1.1629	(0.1116, 0.1973)			
1250	-0.2861	-1.1624	(0.1049, 0.1973)			
1500	-0.2872	-1.1639	(0.1015, 0.1914)			
1750	-0.2881	-1.1675	(0.1015, 0.1914)			

Next I considered an Isoceles Triangle with corner points:
a = (-1, 0), b = (1, 0) ,c = (0, -4)

In this table we also looked at the position and value of the center-eddy:

	Erturk and Gockol	Me
Re	(x,y)	(x,y)
12.5	(0.059, -0.391)	(0.0587, -0.4001)
25	(0.115,-0.398)	(0.1101, -0.3999)
100	(0.213, -0.477)	(0.2124, -0.4767)
200	(0.129, -0.563)	(0.1275, -0.5608)

The next thing i looked at was where the second eddy was. This eddy is spinning the opposite direction so i had to look for the highest value of the stream function:

	Me		
Re	ψ	ω	(x,y)
12.5	0.0002	0.0108	(-0.0018, -2.1924)
100	0.0020	0.0699	(0.0490, -1.8199)
200	0.0073	0.2183	(-0.0237, -1.6809)