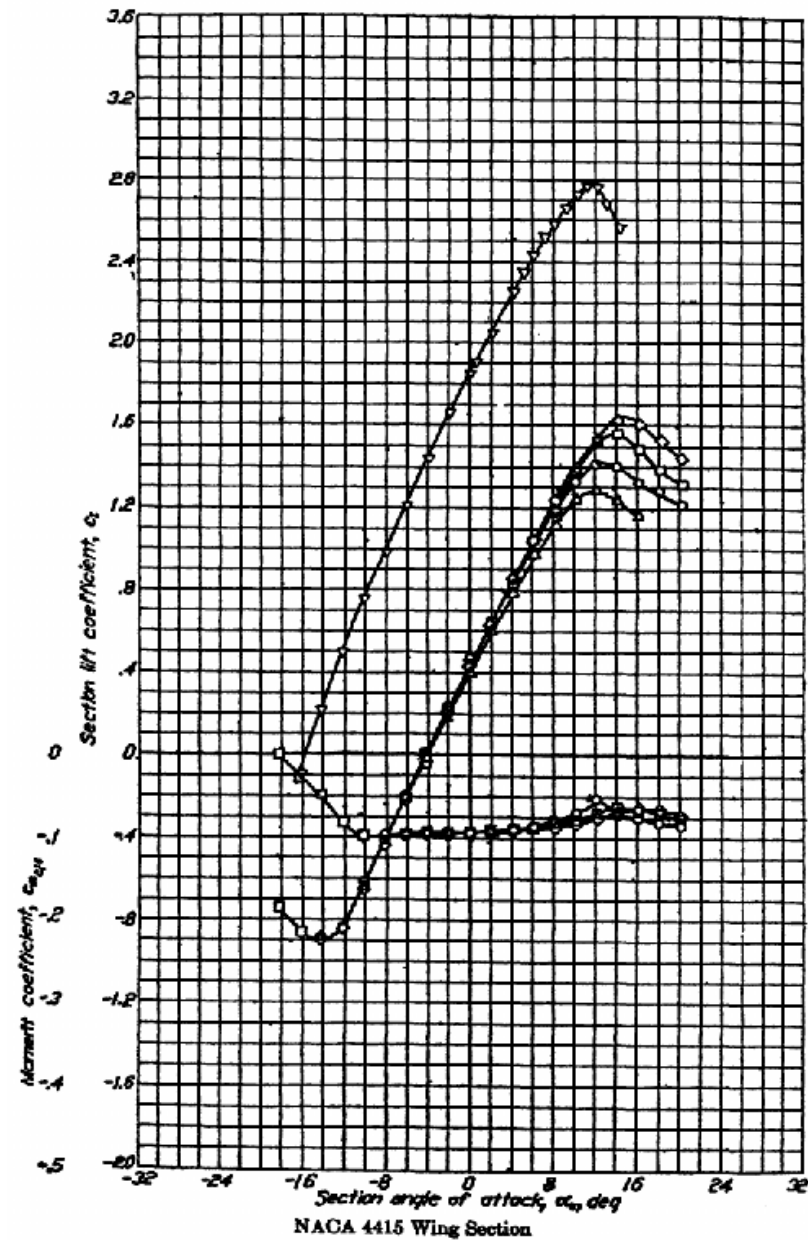
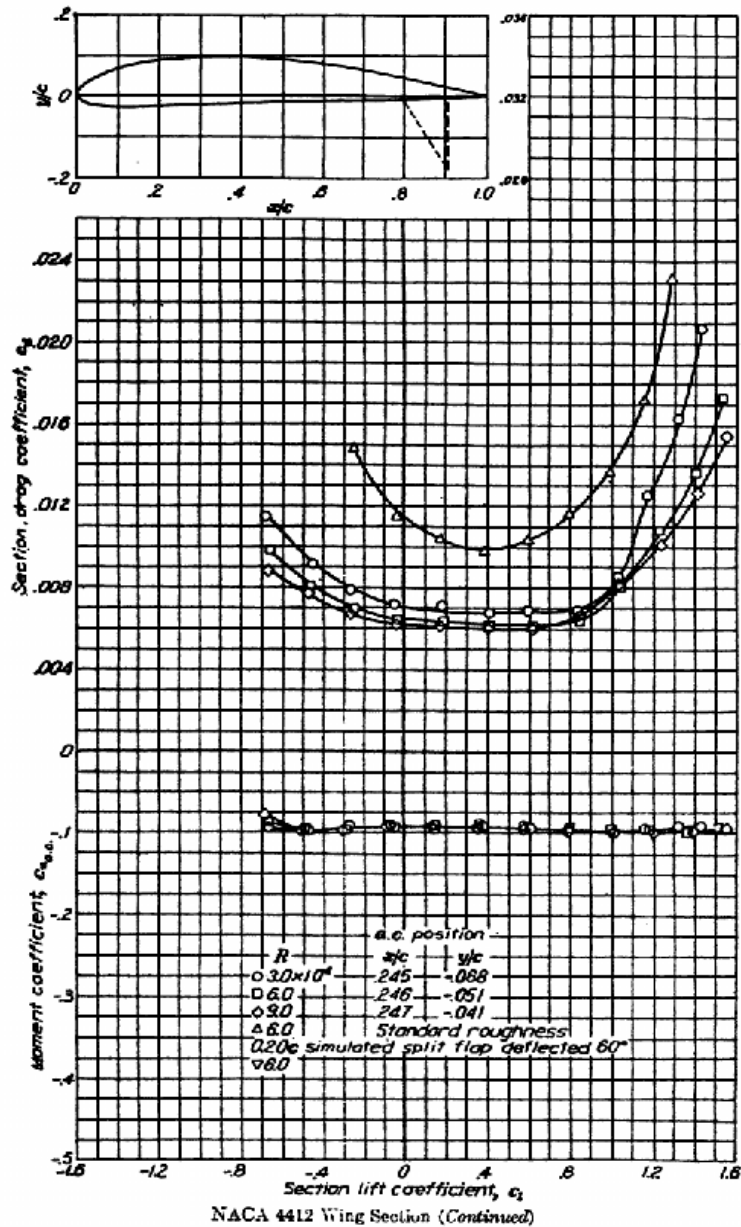




Similarity

Effects of Reynolds number



Effects of Mach number

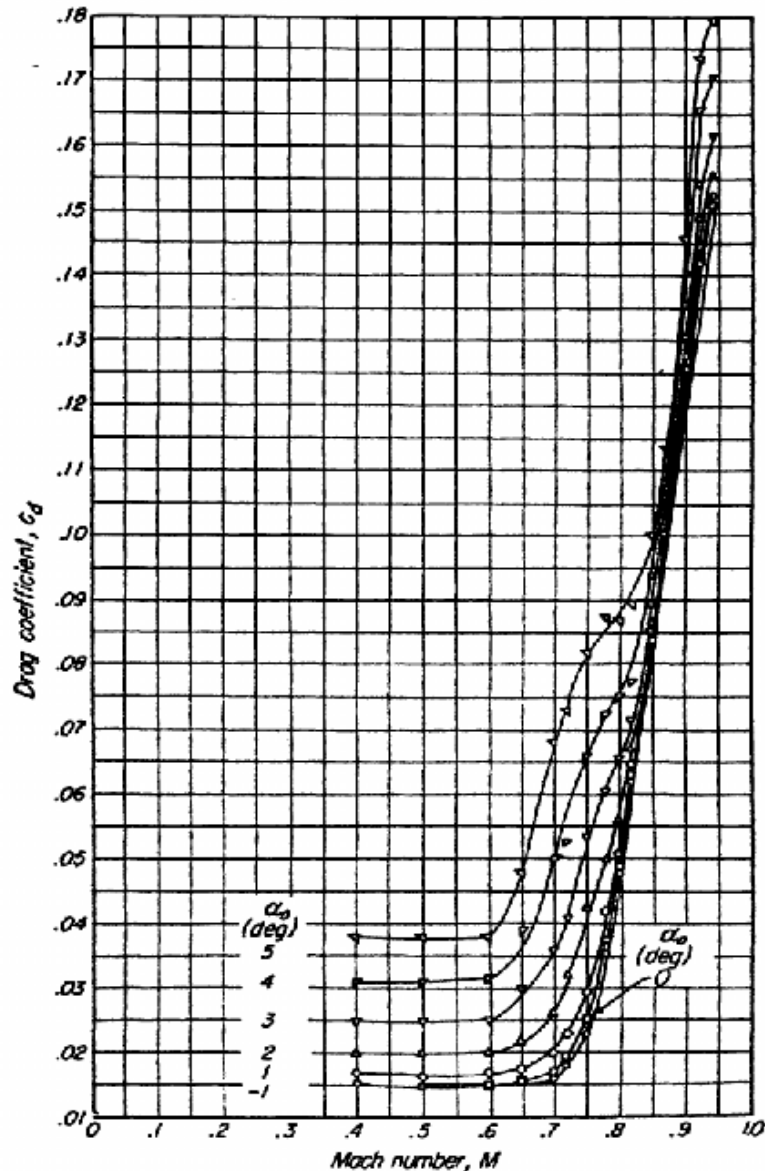


FIG. 179. Effect of compressibility on the drag of the NACA 2315 airfoil.

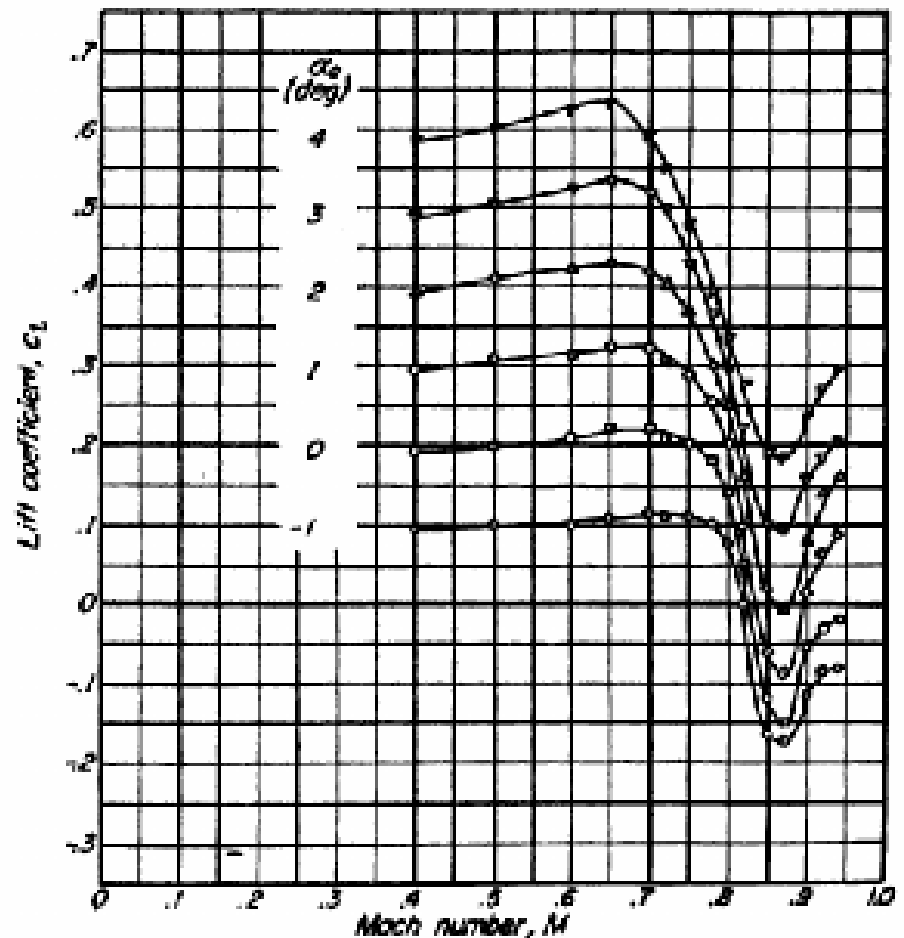
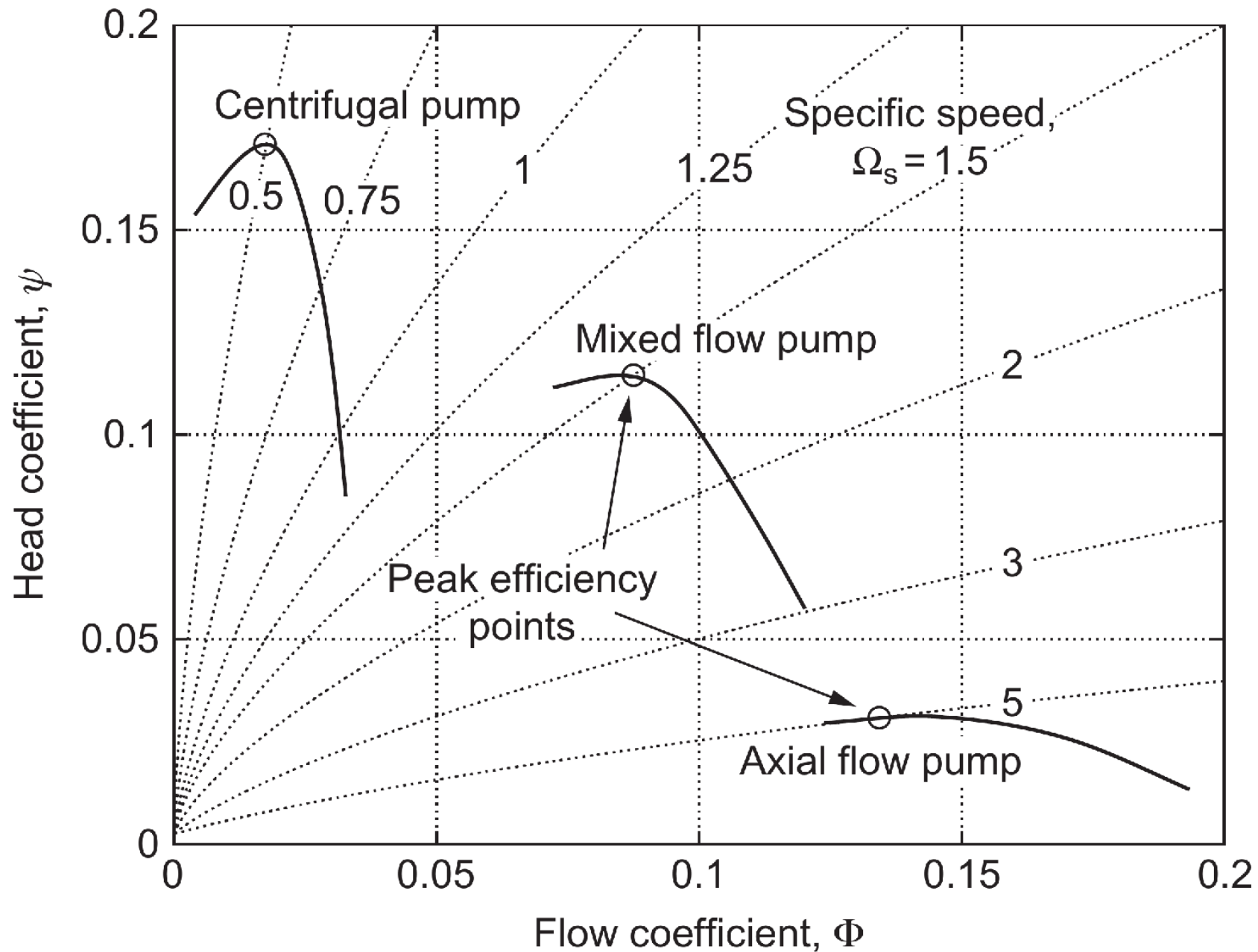
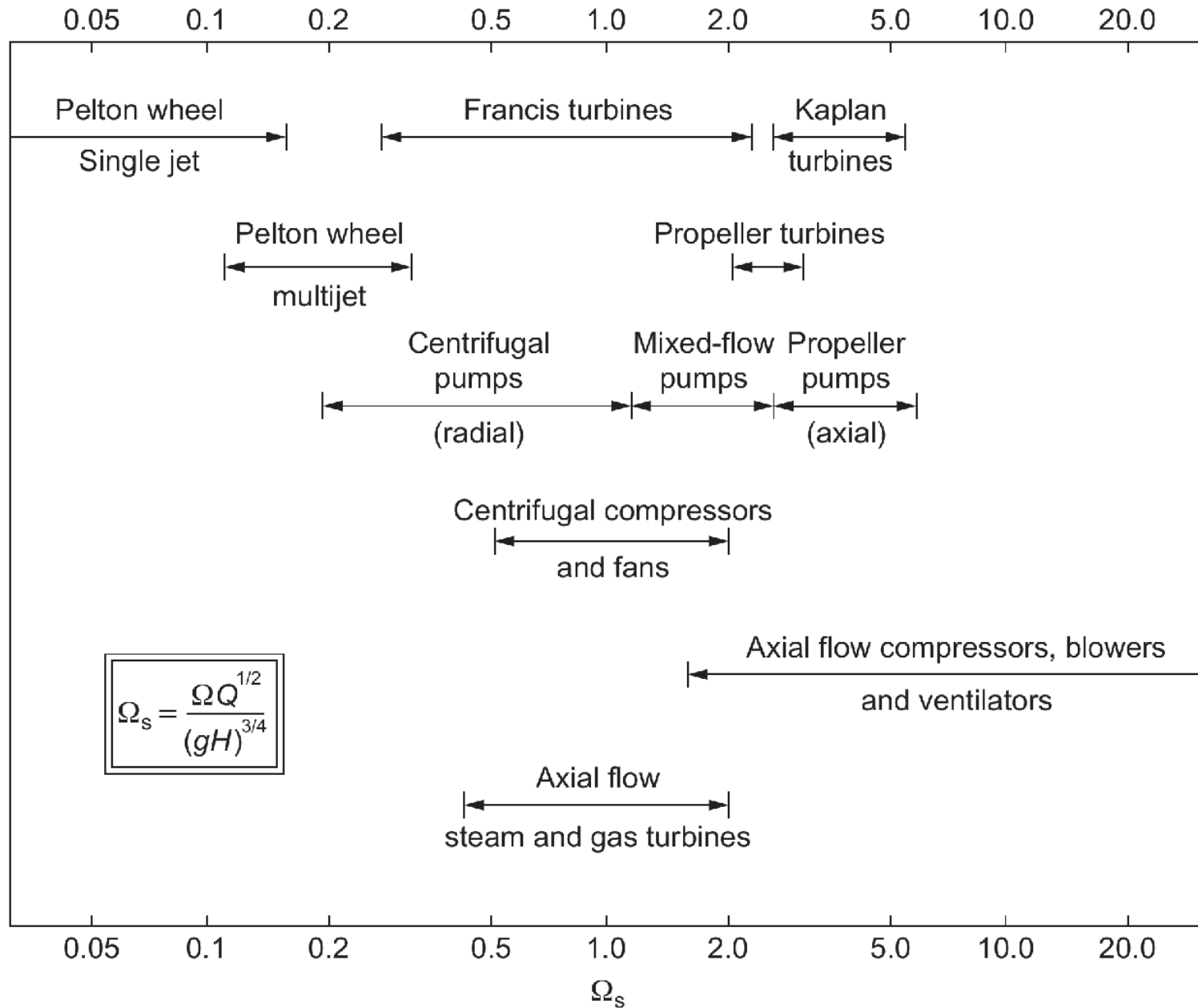


FIG. 184. Effect of compressibility on the lift of the NACA 2312 airfoil.

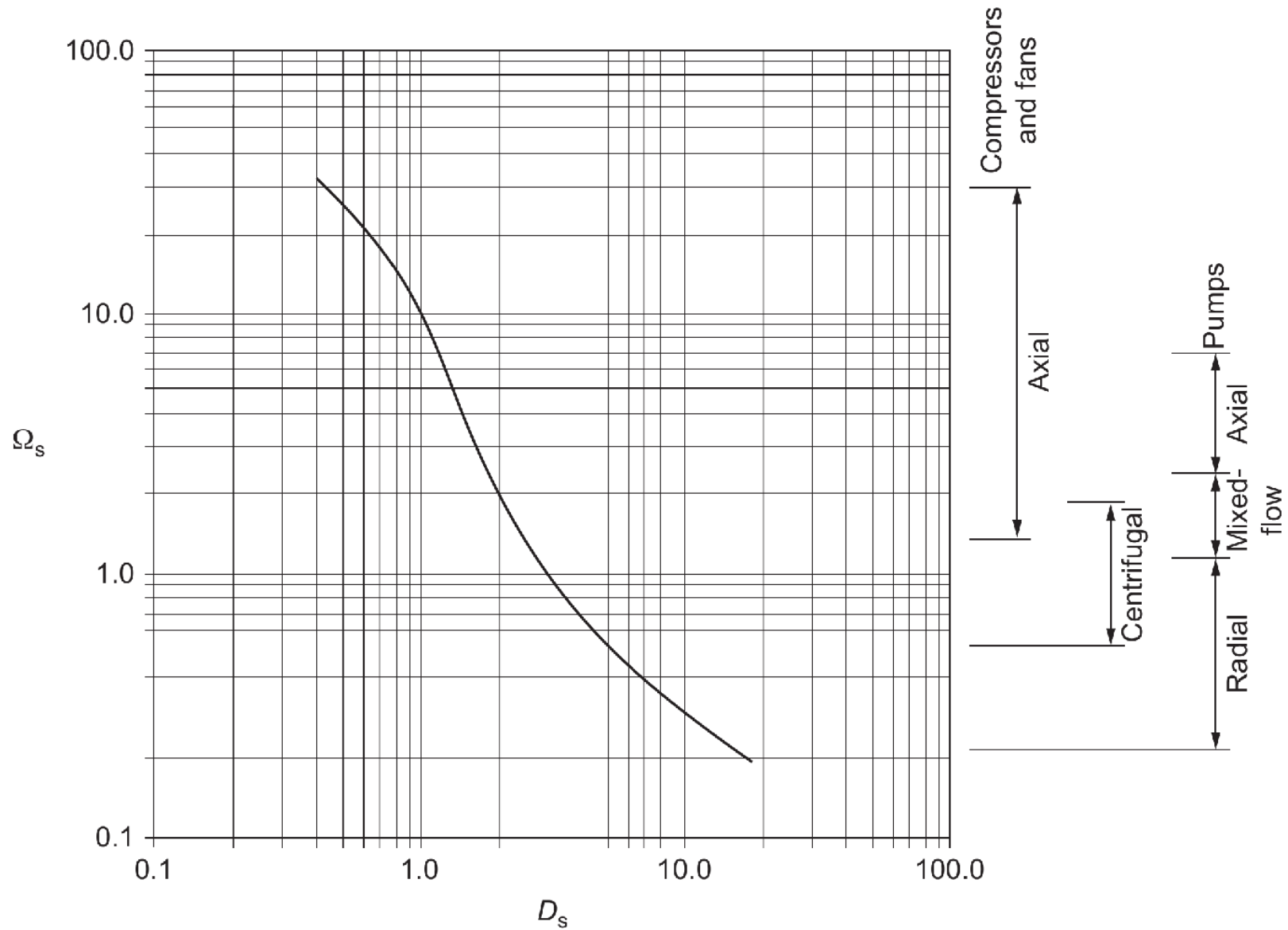
Similarity



Similarity

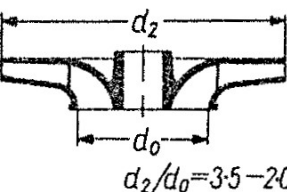
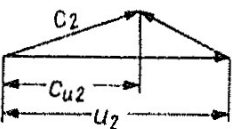
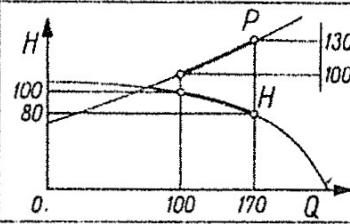
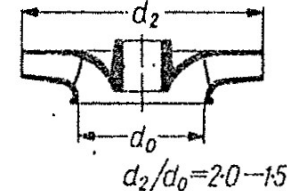
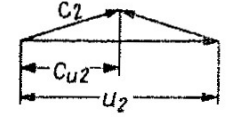
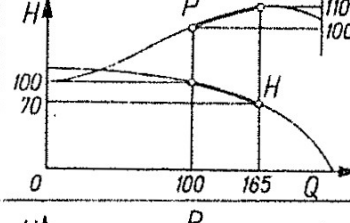
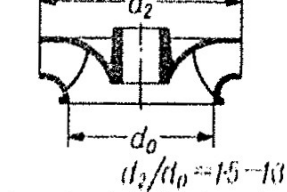
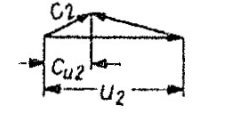
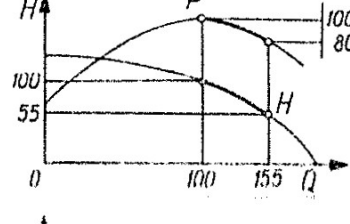
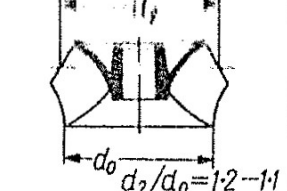

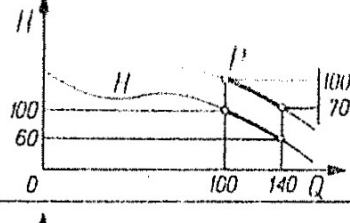
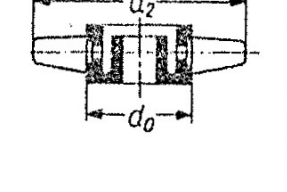
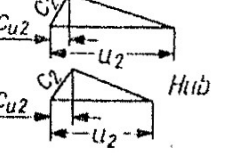
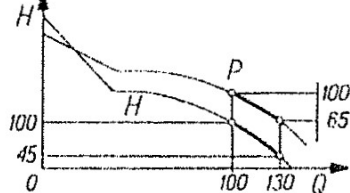


Similarity



Similarity

TABLE I. PROFILES OF SINGLE-ENTRY IMPELLER PUMPS

n_s	Impeller profiles	Velocity triangles	Characteristics
$n_{sQ} = 10-30$	 $d_2/d_0 = 3.5-20$		
$n_{sP} = 36.5-110$			
$n_{sF} = 30-90$			
$n_{sQ} = 30-50$	 $d_2/d_0 = 2.0-15$		
$n_{sP} = 110-200$			
$n_{sF} = 90-150$			
$n_{sQ} = 50-80$	 $d_2/d_0 = 1.5-1.3$		
$n_{sP} = 200-300$			
$n_{sF} = 150-240$			
$n_{sQ} = 80-150$	 $d_2/d_0 = 1.2-1.1$		
$n_{sP} = 300-550$			
$n_{sF} = 240-450$			
$n_{sQ} = 135-320$		<p>Outer perimeter</p> 	
$n_{sP} = 500-1200$			
$n_{sF} = 405-960$			

Similarity

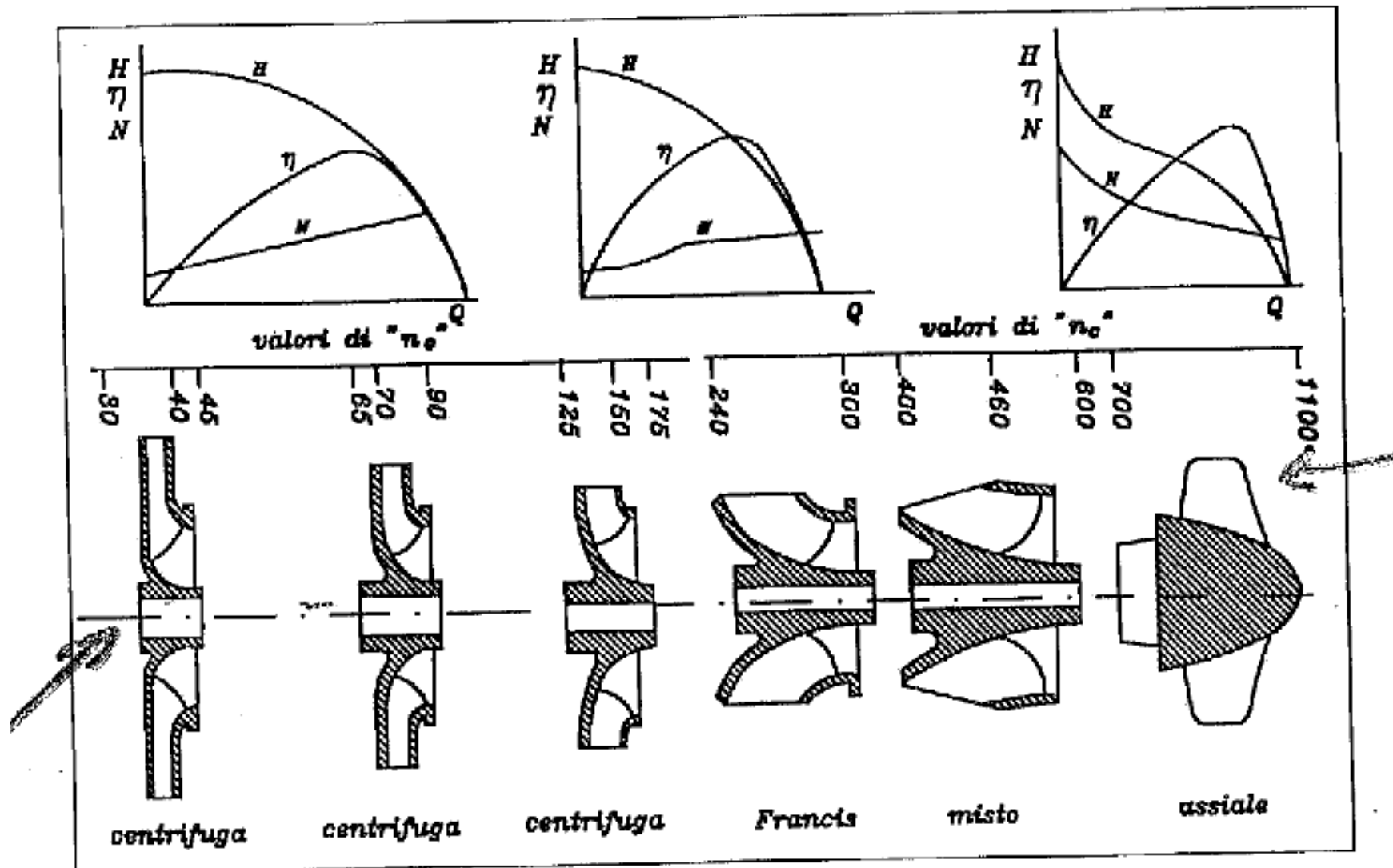
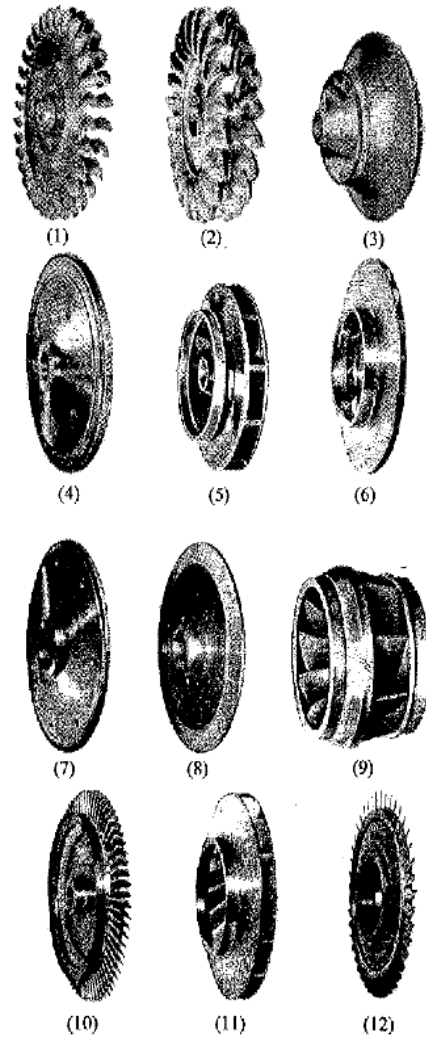


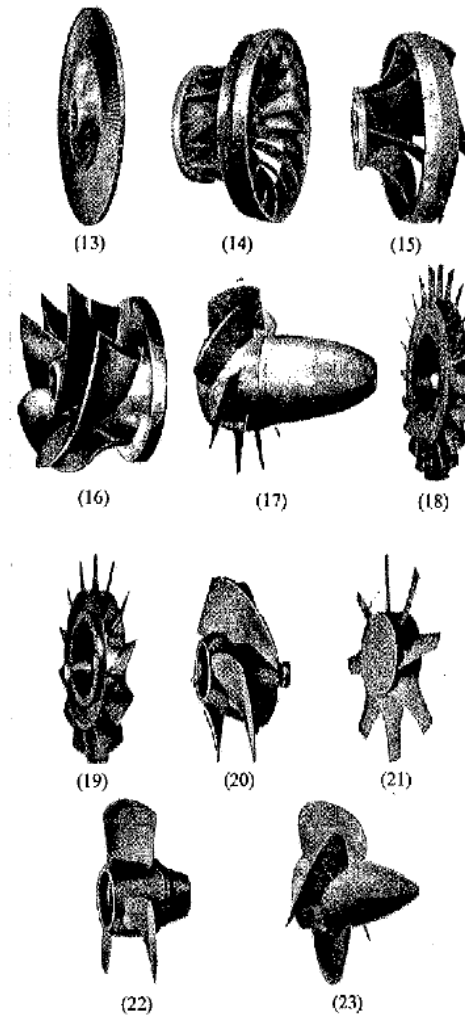
Figura 214. Curve caratteristiche tipiche per giranti di forme diverse

Similarity



	N_s		N_s
(1) Pelton wheel	0.05	(7) Steam turbine	0.54
(2) Pelton wheel	0.13	(8) Steam turbine	1.07
(3) Francis turbine	0.38	(9) Centrifugal pump	1.07
(4) Steam turbine	0.4	(10) Gas turbine	1.18
(5) Centrifugal pump	0.54	(11) Radial compressor	1.34
(6) Radial compressor	0.54	(12) Axial compressor	1.6

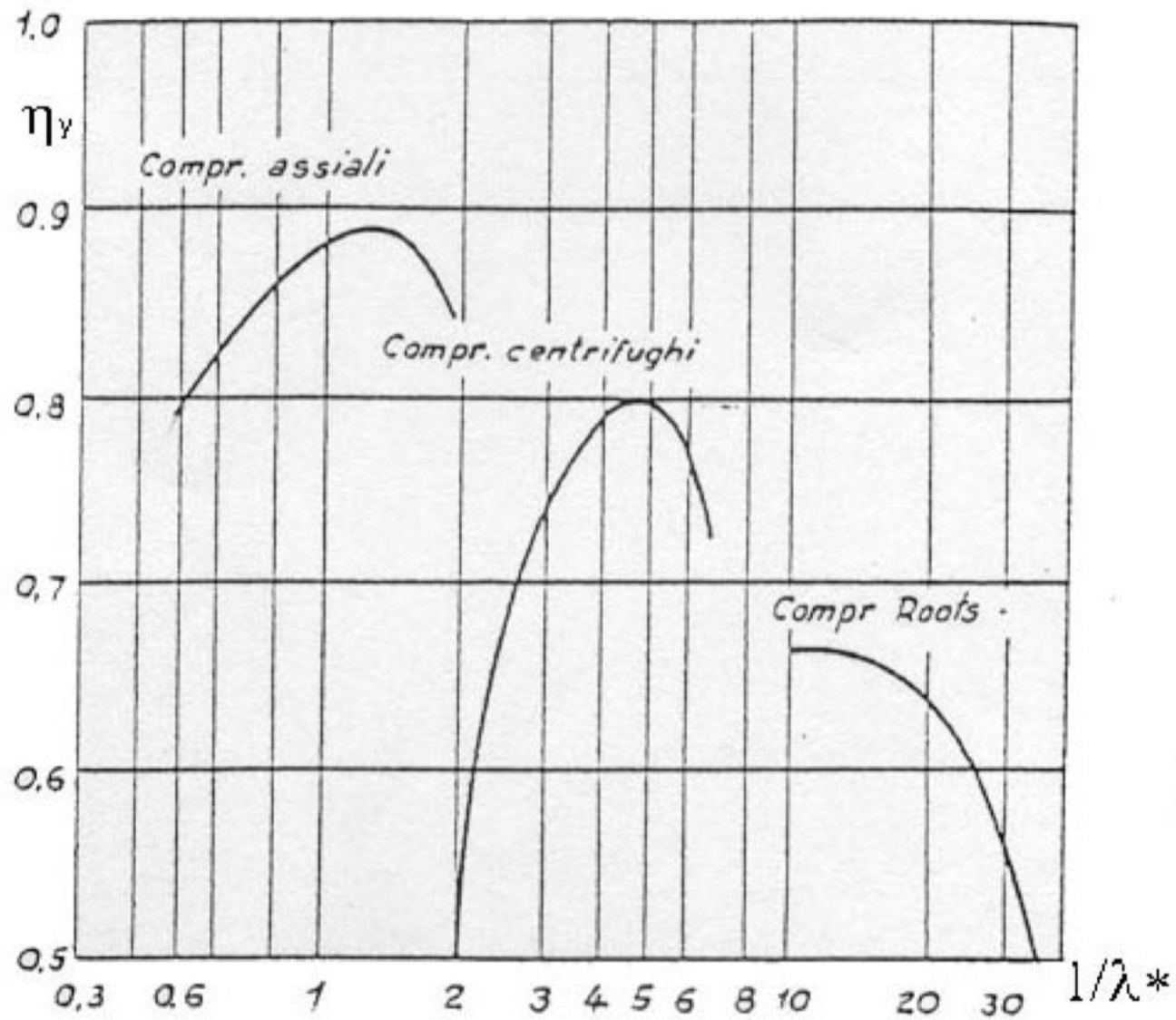
Figure 1.11 Some rotor designs and their dimensionless specific speeds



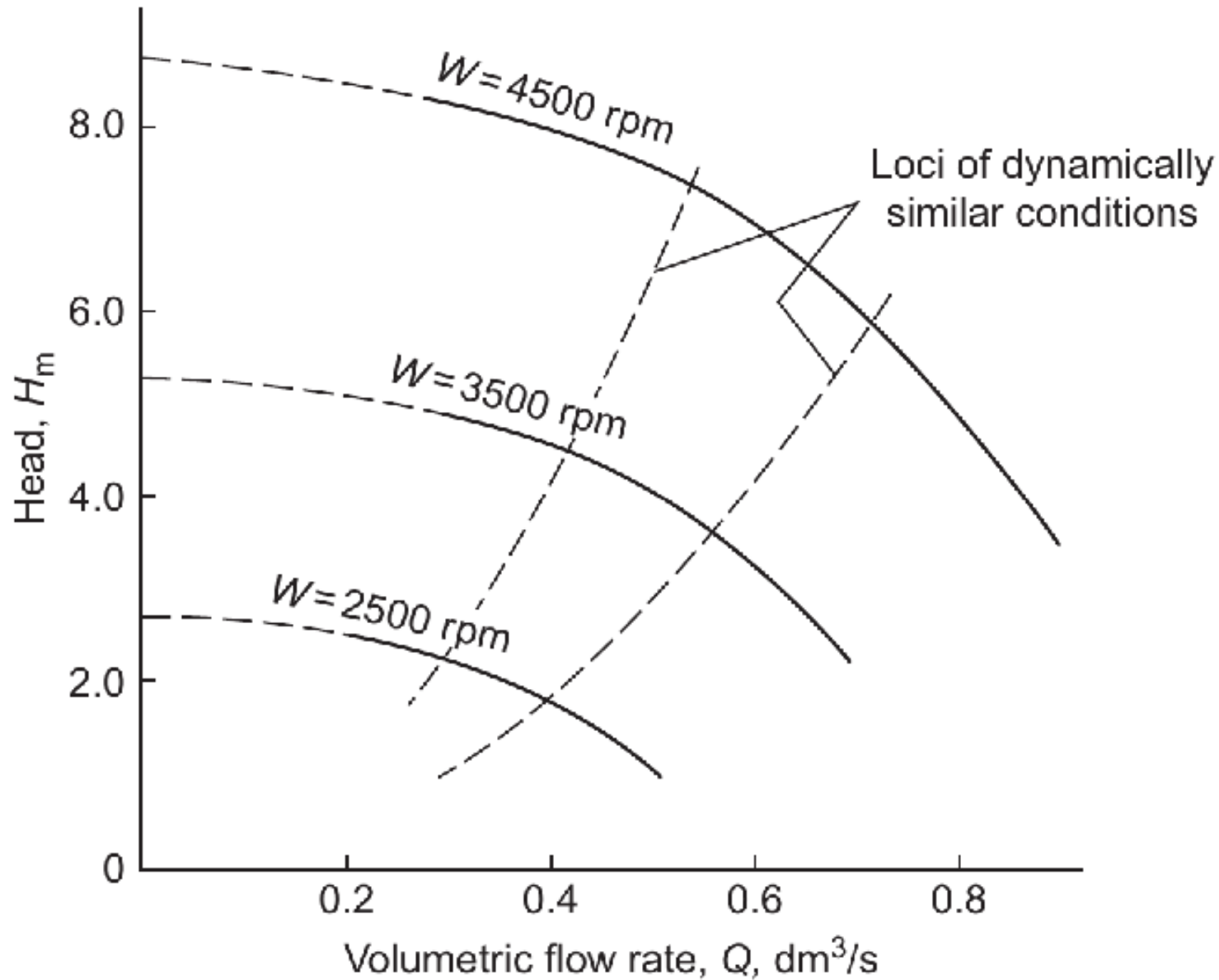
	N_s		N_s
(13) Steam turbine	1.6	(19) Axial compressor	3.21
(14) Francis turbine	1.72	(20) Propeller pump	3.21
(15) Francis turbine	2.14	(21) Axial blower	4.82
(16) Mixed flow pump	2.14	(22) Propeller pump	5.36
(17) Kaplan turbine	2.41	(23) Kaplan turbine	5.36
(18) Axial compressor	2.41		

Figure 1.11 (contd)

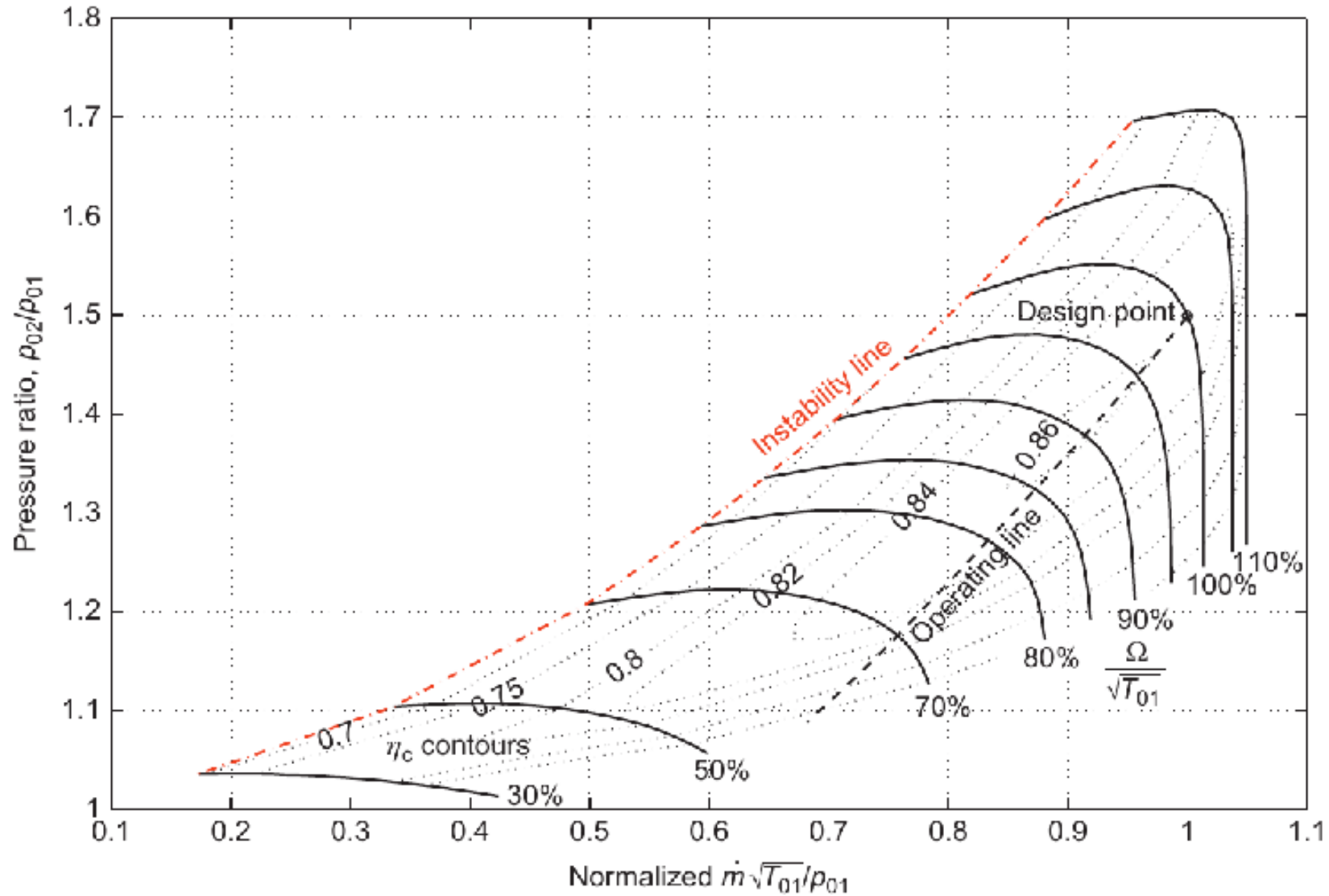
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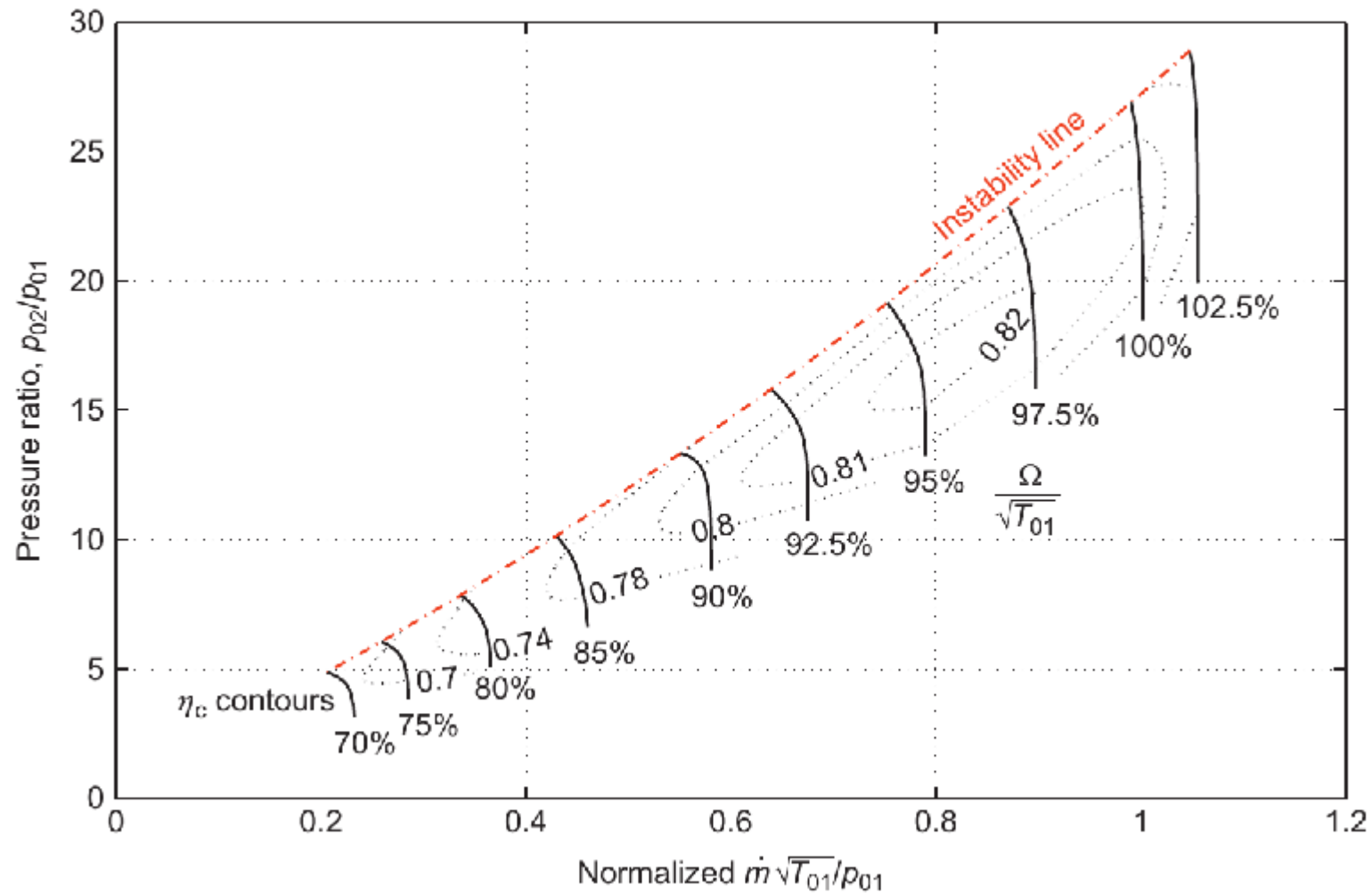
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Similarity

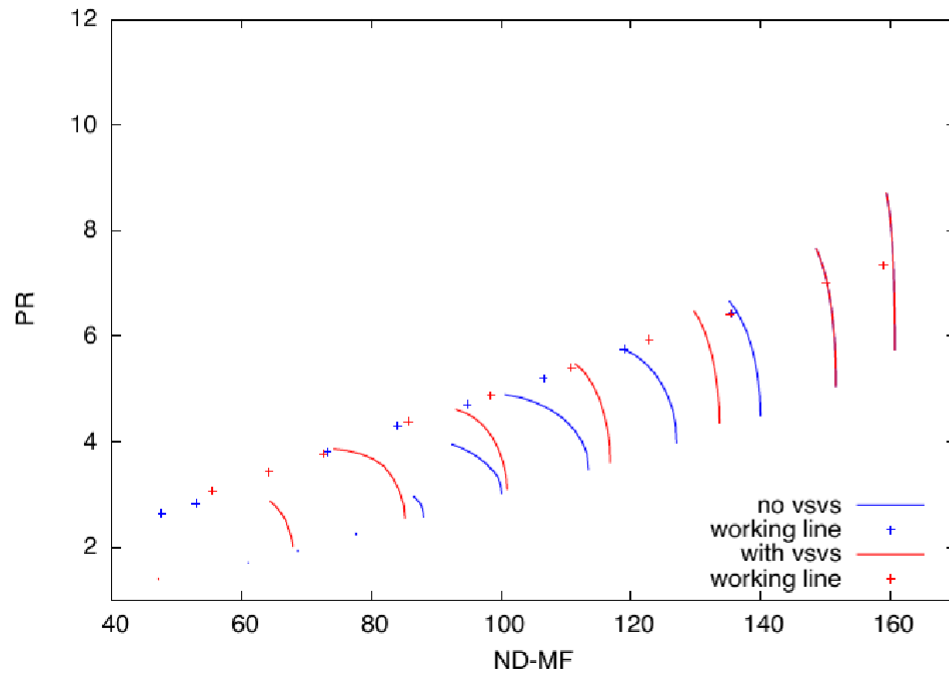


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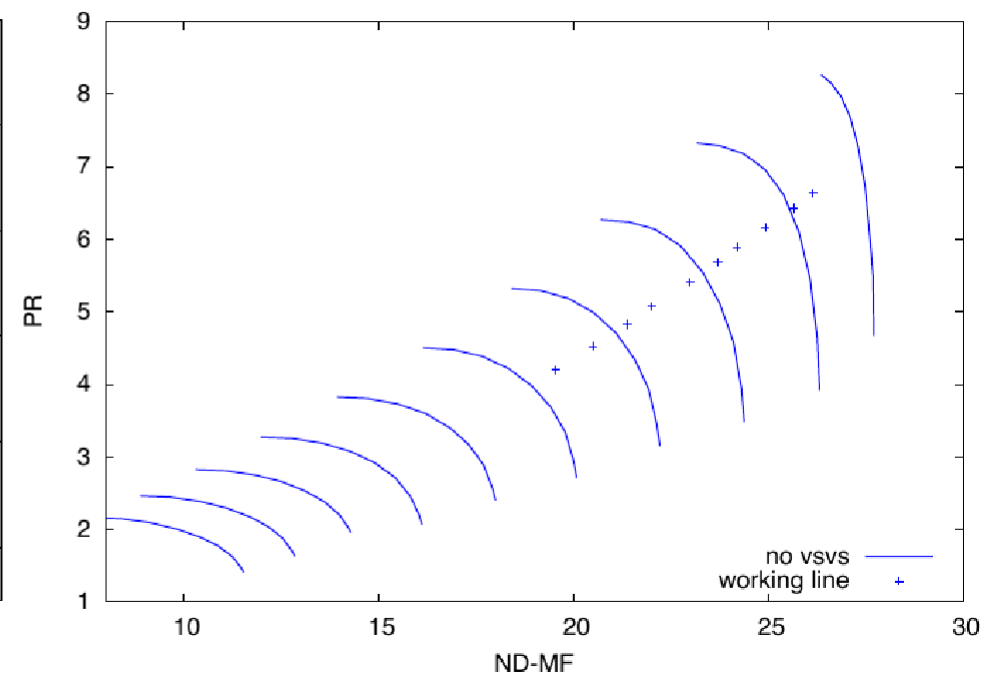


Similarity

IPC

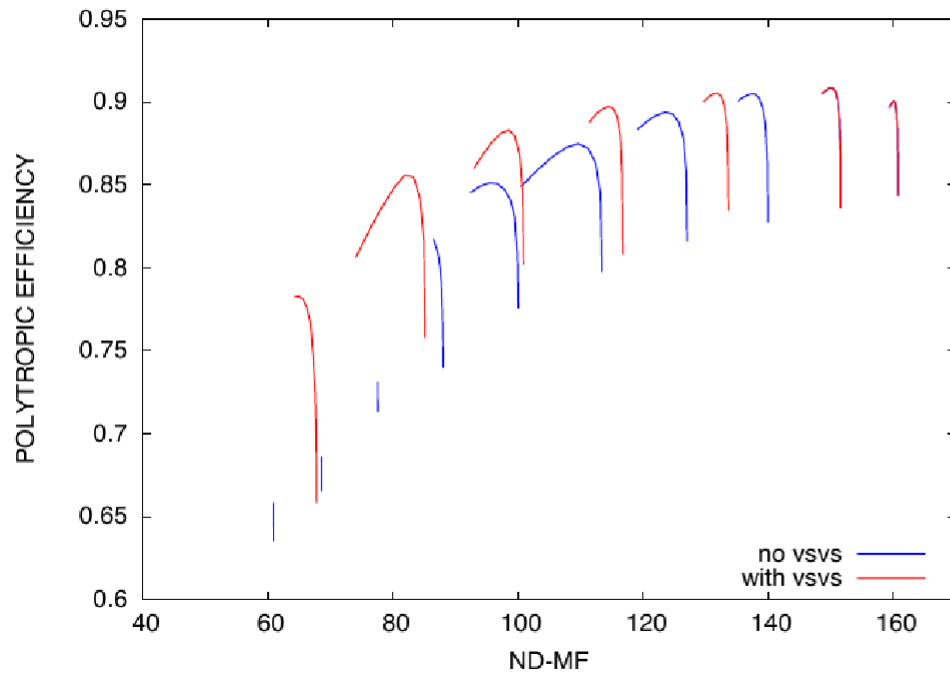


HPC

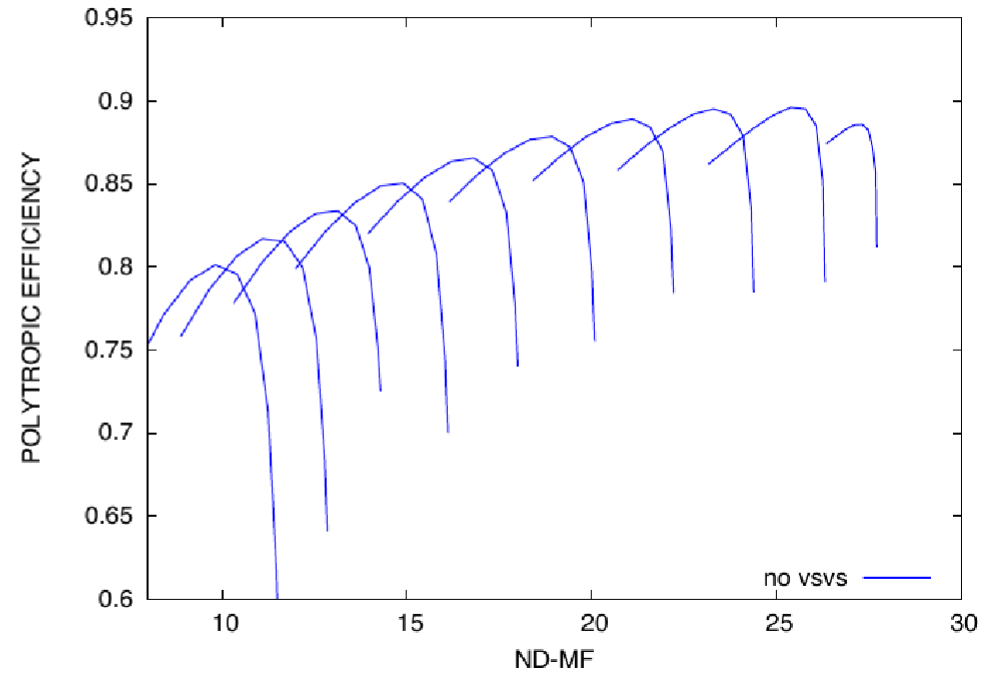


Similarity

IPC



HPC



Similarity

