

Timeline of SVD in MKL, Matlab, Mathematica, or  
Behaviour of MKL, Matlab, Mathematica in different time and for different matrix size.

code \ MKL version		10.3.0	11.1.1	11.2.2	11.3.1 / 11.3.2	2017.0.1	2017.0.31	2018.0.1	2018.0.3	
dgesvd	n=2500	dgebrd + dbdsqr same above	dgebrd + dbdsqr							
	n=2501		dgerdb + dbdsqr							
dgesdd	n=2500	dgebrd+dbdsdc same above	dgebrd + dbdsdc	dgebrd + dbdsdc						
	n=2501		dgerdb + dbdsdc	same above						
Matlab	rank() via		dgesvd					dgesdd		
	version		2015b	??	2016b - 2017b			2018a	2018b	2019a
Mathematica	MatrixRank[] via	dgesdd		dgesdd						dgesdd
	version	8.0		10.3.0	11.0.1	11.3.0			12.0.0	

dbdsdc{dlasdq{dbdsqr}}

MKL 2018.0.3	dgemm	dgesdd		sgesvd	
nCPU	2500	2500	2501	2500	2501
1		6.131	6.391		
1/4		8.894	9.194		
1/10		18.232	18.711		
1/20		6.155	6.349		

MKL 2018.0.3	dgemm	dgesdd			sgesvd		
nCPU	2500	2500	2501	5000	2500	2501	5000
1		6.131	6.391		6.138	3.219	22.163
4		2.058	2.132		1.722	1.335	7.751
10		1.105	1.176		1.085	0.817	4.232
2x10		0.921	0.962	10.689	0.884	0.872	3.510

2x E5-2690 v2