

	Features			Complexity
List of Sorting Algorithms	Parallel	Stable	Online	Sequential
Patience Sort				$n \log n$
Heap Sort				$n \log n$
Radix Sort	with Bucket			$n \cdot \text{range of count}$
Bucket Sort				n^2
Flash Sort				$\max(n, \text{final sorting algorithm})$
Tree Sort				n^2
Enumeration Sort				n^2
Tim Sort				$n \log n$
Pigeon Hole Sort			with given range	$n \cdot \text{range of count}$
Burst Sort				$n \cdot \text{range of count}$
Quick Sort				n^2
Selection Sort				n^2
Merge Sort				$n \log n$
Bubble Sort				n^2
Odd-Even Sort				n^2
Counting Sort			with given range	$n \cdot \text{range of count}$
Insertion Sort				n^2

Parallel

n

x

n-range of count

n^2 (everyone goes to same bucket)

1 with n processors for flashing, and then final sorting algorithm which can do enum with generally fewer processors

x

1 with n^2 processors

$n \log n$ (still has to find runs merging conditions can be made better with different sets merging in parallel)

1

x

$(\log(n))^{2??}$

n

n

1 for not needing to swap data, $\log(n)$ for merging if you swap

$n \log n(?)$