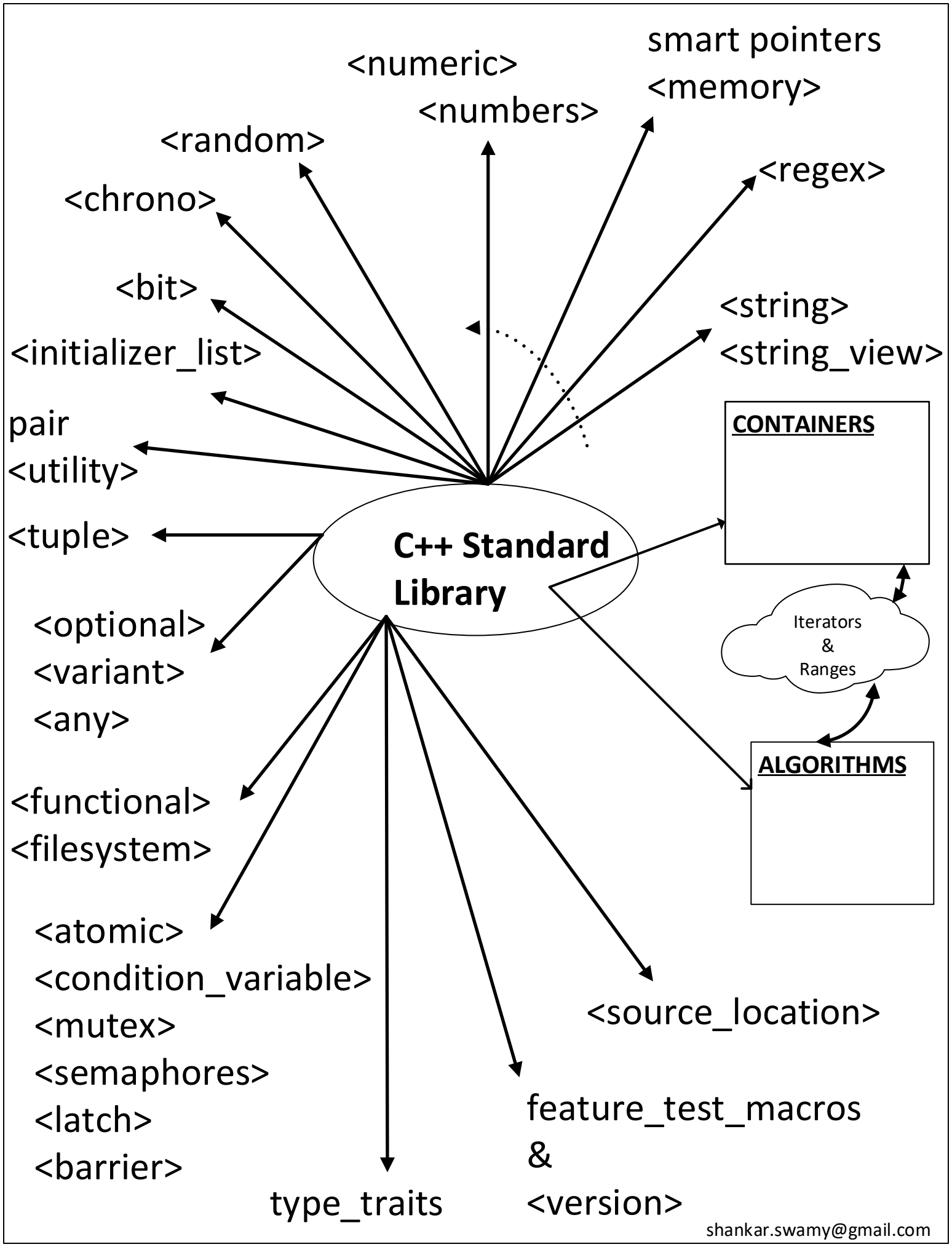
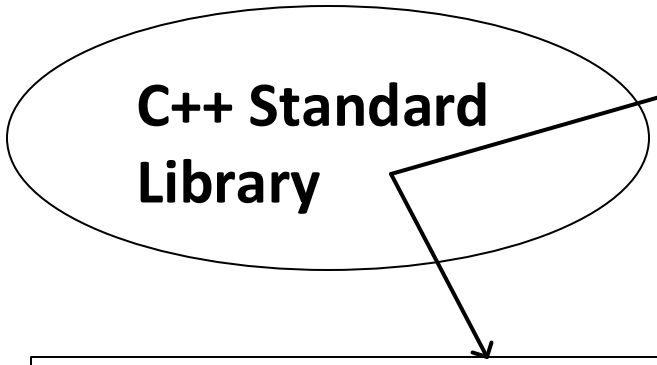


shankar.swamy@gmail.com

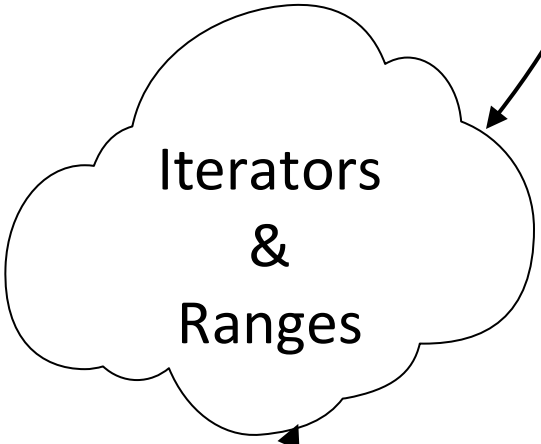


CONTAINERS

1. vector
2. list
3. forward_list
4. deque
5. array
6. queue
7. priority_queue
8. stack
9. set
10. multiset
11. map
12. multimap
13. unordered_map
14. unordered_multimap
15. unordered_set
16. unordered_multiset
17. bitset

ALGORITHMS

1. Search Algorithms
2. Comparison Algorithms
3. Counting Algorithms
4. Sequence Modifying Algorithms
5. Operational Algorithms
6. Swap Algorithms
7. Partition Algorithms
8. Sorting Algorithms
9. Binary Search Algorithms
10. Minimum/Maximum Algorithms
11. Numerical Processing Algorithms
12. Permutation Algorithms



shankar.swamy@gmail.com

1. Search Algorithms

1. adjacent_find()
2. find()
3. find_if()
4. find_first_of()
5. find_if_not()
6. find_end()
7. search()
8. search_n()

2. Comparison Algorithms

1. equal()
2. mismatch()
3. lexicographical_compare()
4. lexicographical_compare_three_way()

shankar.swamy@gmail.com

3. Counting Algorithms

1. all_of()
2. any_of()
3. none_of()
4. count()
5. count_if()

shankar.swamy@gmail.com

4. Sequence Modifying Algorithms

1. copy()
2. copy_backward()
3. copy_if()
4. copy_n()
5. fill()
6. fill_n()
7. generate()
8. move()
9. move_backward()
10. remove()
11. remove_if()
12. remove_copy()
13. remove_copy_if()
14. replace()
15. replace_if()

shankar.swamy@gmail.com

... 4. Sequence Modifying Algorithms

16. replace_copy()
17. replace_copy_if()
18. reverse()
19. reverse_copy()
20. rotate()
21. rotate_copy()
22. sample()
23. shift_left()
24. shift_right()
25. shuffle()
26. random_shuffle()
27. transform()
28. unique()
29. unique_copy()

shankar.swamy@gmail.com

5. Operational Algorithms

1. for_each()
2. for_each_n()

6. Swap Algorithms

1. iter_swap()
2. swap_ranges()

7. Partition Algorithms

1. is_partitioned()
2. partition()
3. stable_partition()
4. partition_copy()
5. partition_point()

shankar.swamy@gmail.com

8. Sorting Algorithms

1. is_sorted()
2. is_sorted_until()
3. nth_element()
4. partial_sort()
5. partial_sort_copy()
6. stable_sort()
7. sort()

9. Binary Search Algorithms

1. lower_bound()
2. upper_bound()
3. equal_range()
4. binary_search()

shankar.swamy@gmail.com

10. Set Algorithms

1. inplace_merge()
2. merge()
3. includes()
4. set_union()
5. set_intersection()
6. set_difference()
7. set_symmetric_difference()

11. Heap Algorithm

1. is_heap()
2. is_heap_until()
3. make_heap()
4. push_heap()
5. pop_heap()
6. sort_heap()

shankar.swamy@gmail.com

12. Minimum/Maximum Algorithms

1. clamp()
2. min()
3. max()
4. minmax()
5. min_element()
6. max_element()
7. minmax_element()

shankar.swamy@gmail.com

13. Numerical Processing Algorithms

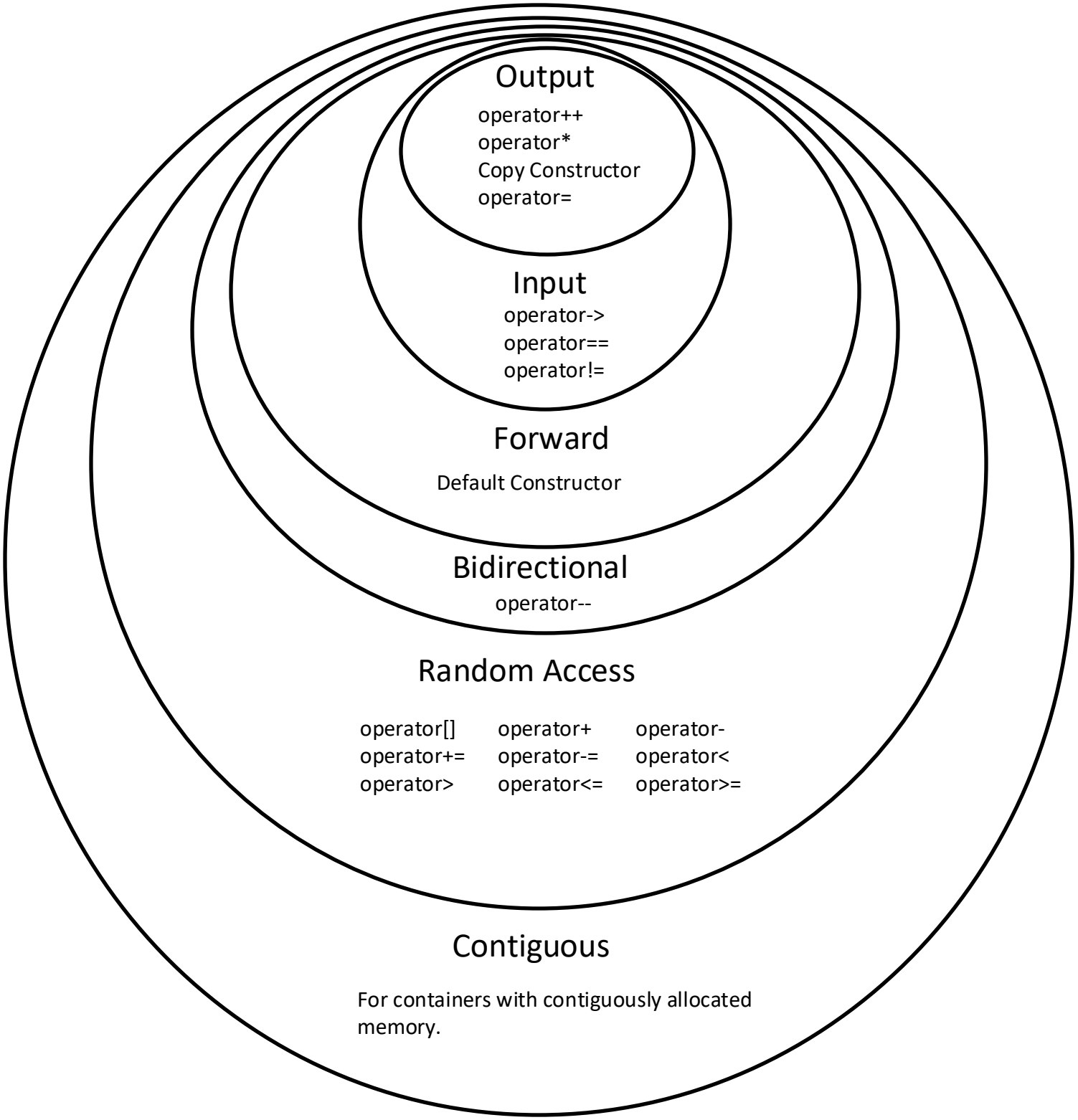
1. iota()
2. adjacent_difference()
3. partial_sum()
4. exclusive_scan()
5. inclusive_scan()
6. transform_exclusive_scan()
7. transform_inclusive_scan()
8. accumulate()
9. inner_product()
10. reduce()
11. transform_reduce()

14. Permutation Algorithms

1. is_permutation()
2. next_permutation()
3. prev_permutation()

shankar.swamy@gmail.com

Iterator Concepts in C++20



shankar.swamy@gmail.com

	Containers	
1	vector	
2	list	
3	forward_list	
4	deque	
5	array	
6	queue	
7	priority_queue	
8	stack	
9	set	
10	multiset	
11	map	
12	multimap	
13	unordered_map	
14	unordered_multimap	
15	unordered_set	
16	unordered_multiset	
17	bitset	

Algorithms		
1	Search	
2	Comparison	
3	Counting	
4	Sequence Modifying	
5	Operational	
6	Swap	
7	Partition	
8	Sorting	
9	Binary Search	
10	Set	
11	Heap	
12	Minimum/Maximum	
13	Numerical Processing	
14	Permutation	

1. Search Algorithms	
adjacent_find()	
find()	
find_if()	
find_first_of()	
find_if_not()	
find_end()	
search()	
search_n()	

2. Comparison Algorithms	
equal()	
mismatch()	
lexicographical_ compare()	
lexicographical_ compare_three_way()	

3. Counting Algorithms	
all_of()	
any_of()	
none_of()	
count()	
count_if()	

4. Sequence Modifying Algorithms	
copy() copy_backward()	
copy_if()	
copy_n()	
fill()	
fill_n()	
generate()	
move() move_backward()	
remove() remove_if() remove_copy() remove_copy_if()	
replace() replace_if() replace_copy() replace_copy_if()	

… 4. Sequence Modifying Algorithms (contd.)	
reverse() reverse_copy()	
rotate() rotate_copy()	
sample()	
shift_left() shift_right()	
shuffle() random_shuffle()	
transform()	
unique() unique_copy()	

5. Operational Algorithms	
for_each()	
for_each_n()	

6. Swap Algorithms	
iter_swap() swap_ranges()	

7. Partition Algorithms	
is_partitioned()	
partition()	
stable_partition()	
partition_copy()	
partition_point()	

8. Sorting Algorithms	
is_sorted()	
is_sorted_until()	
nth_element()	
partial_sort() partial_sort_copy()	
stable_sort() sort()	

9. Binary Search Algorithms	
lower_bound()	
upper_bound()	
equal_range()	
binary_search()	

10. Set Algorithms	
inplace_merge()	
merge()	
includes()	
set_union() set_intersection() set_difference() set_symmetric_difference()	

11. Heap Algorithm	
is_heap()	
is_heap_until()	
make_heap()	
push_heap() pop_heap()	
sort_heap()	

12. Minimum/Maximum Algorithms	
clamp()	
min() max()	
minmax()	
min_element()	
max_element()	
minmax_element()	

13. Numerical Processing Algorithms	
iota()	
adjacent_difference()	
partial_sum()	
exclusive_scan() inclusive_scan()	
transform_exclusive_scan() transform_inclusive_scan()	
accumulate()	
inner_product()	
reduce()	
transform_reduce()	

14. Permutation Algorithms	
is_permutation()	
next_permutation() prev_permutation()	