

a) slice of the matrix representation using matrix rows IDs.

...	col 2	col 3	col 4	...
	2			
	3			
	4			
		5		
		6		
		7		
		8		
			9	
			10	

b) columns are sorted based on a chosen k-mer ordering

col 2	col 3	col 4		col 2	col 3	col 4
2	5	9		3	7	9
3	6	10	→	2	5	10
4	7			4	8	
	8				6	

c) overlapping k-mer pairs are detected

col 2	col 3		col 2	col 3
3	7		3	7
2	5	→	2	5
4	8		4	8
	6			6

col 3	col 4		col 3	col 4
7	9		7	9
5	10	→	5	10
8			8	
6			6	

d) colinear chaining selects the maximal number of non-overlapping pairs

col 2	col 3		col 2	col 3
3	7		3	7
2	5	→	2	5
4	8		4	8
	6			6

col 3	col 4		col 3	col 4
7	9		7	9
5	10	→	5	10
8			8	
6			6	

col 2	col 3		col 2	col 3
3	7		3	7
2	5		2	5
4	8		4	8
	6			6

col 3	col 4		col 3	col 4
7	9		7	9
5	10		5	10
8			8	
6			6	

e) reconciliation of the seleted overlaps from each pair of columns and super-k-mer sorted list generation

col 2	col 3	col 4	
3	7	9	
2	5	10	→
4	8		
	6		

[[1],
[7],
[3,5,9],
[11],
[2,8],
[4,6]]