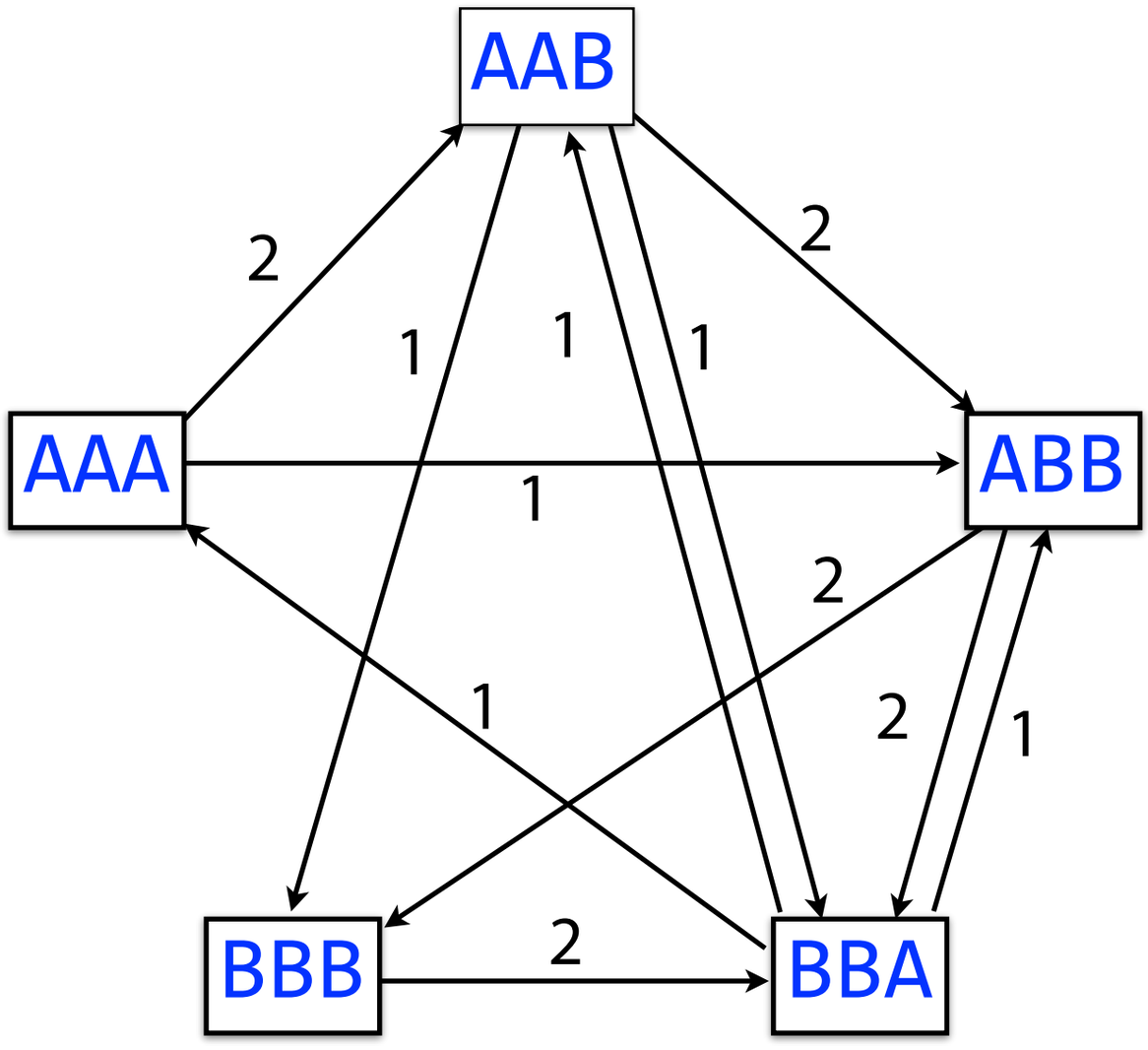
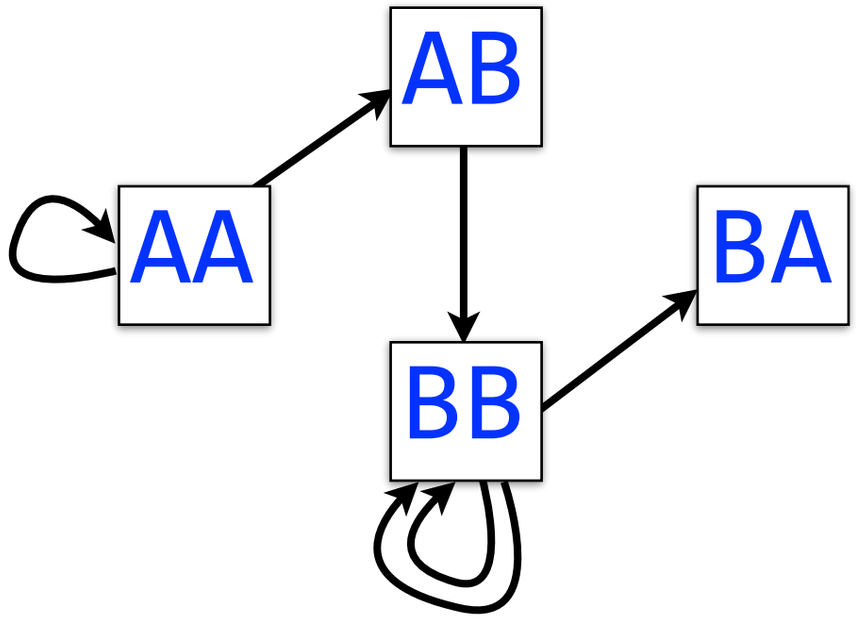
Overlap graph

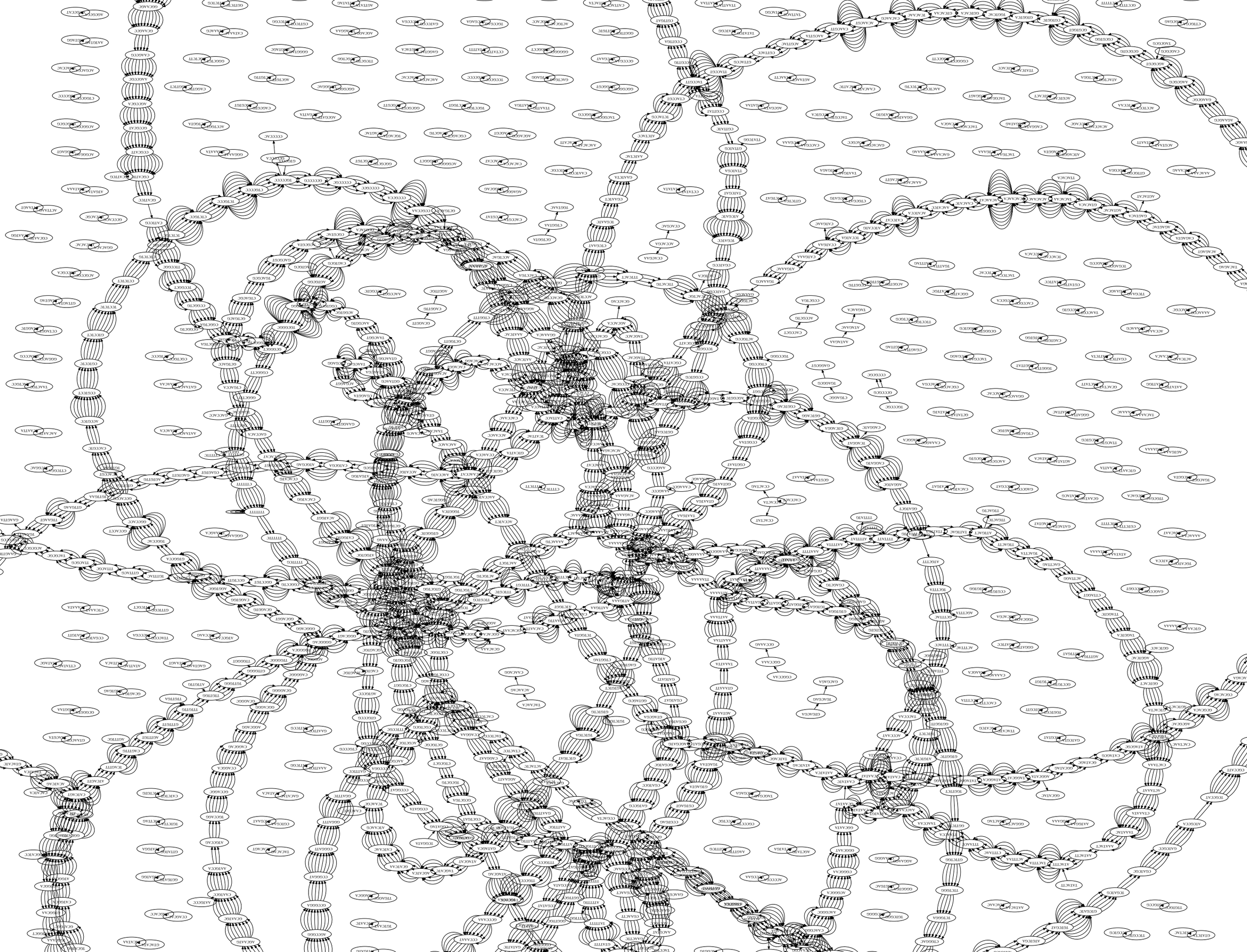


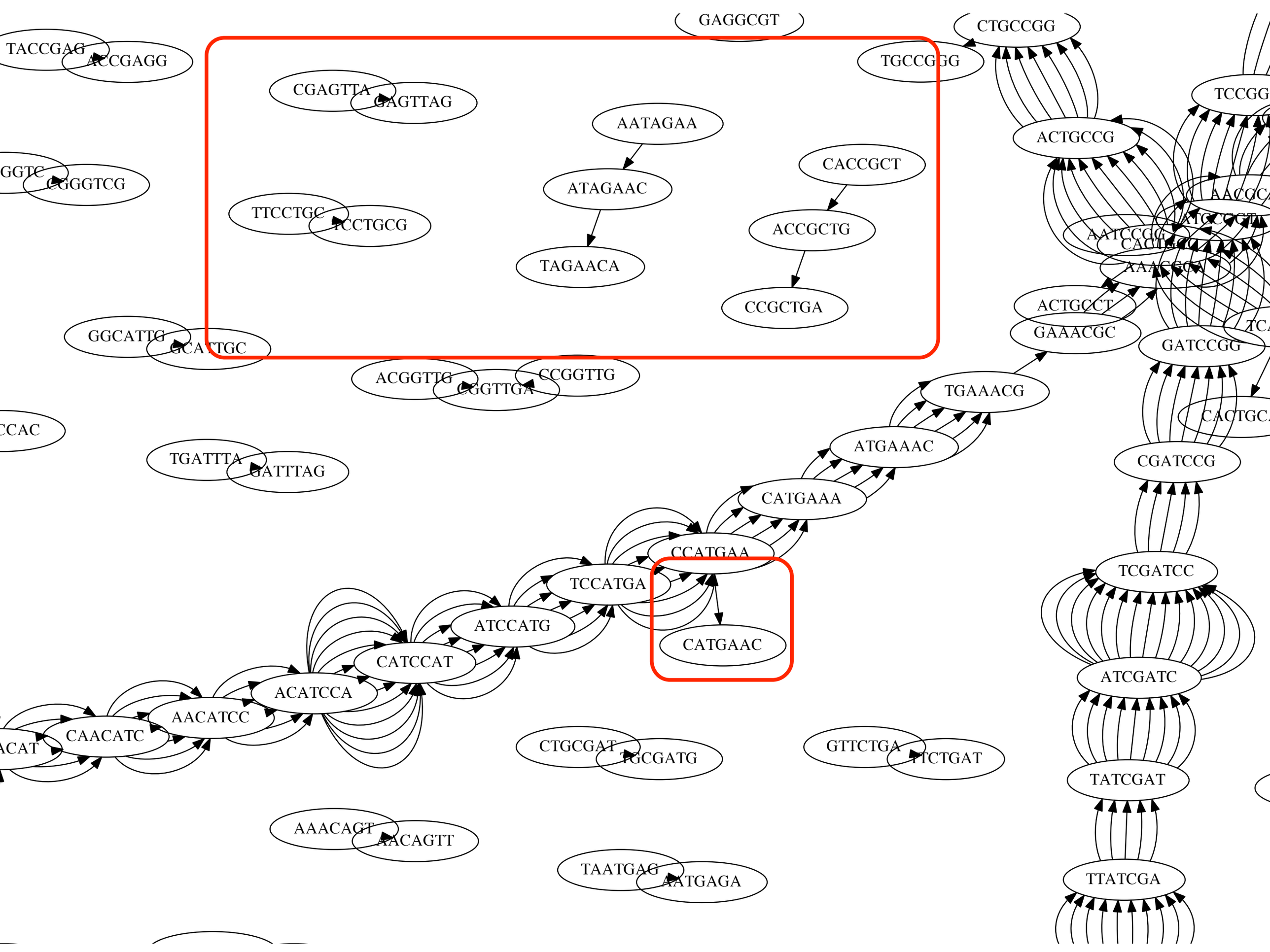
Overlap-Layout-Consensus
(OLC) assembly

De Bruijn graph



De Bruijn Graph based
(DBG) assembly




GAGGCGT
TACCGAG
ACCGAGG
CGAGTTA
GAGTTAG
AATAGAA
ATAGAAC
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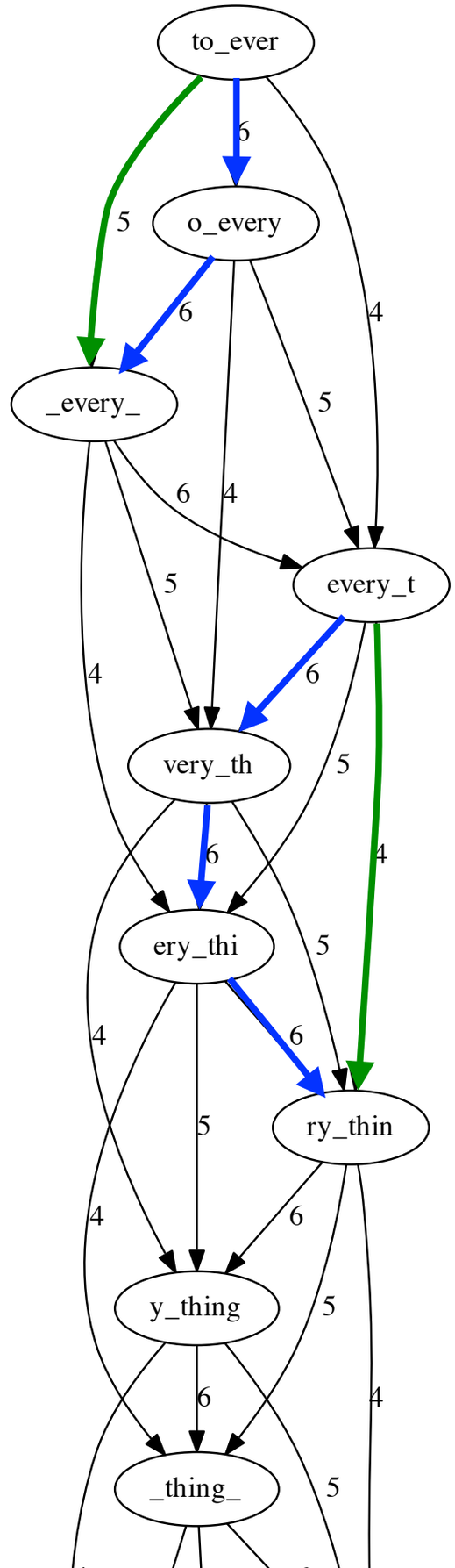
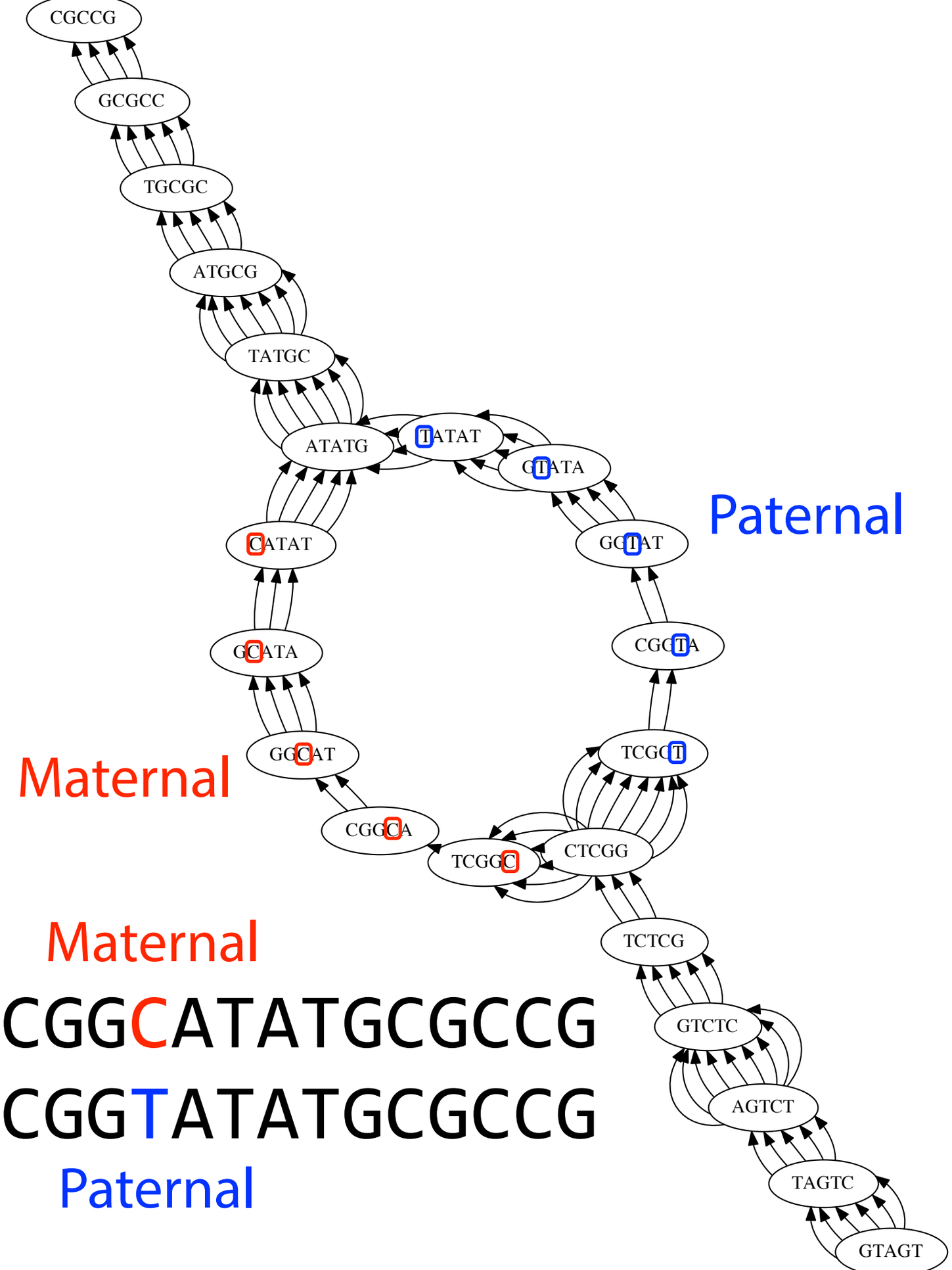
CACCGCT
ACCGCTG
CCGCTGA
GGTC
CGGGTCG
TTCCTGC
TCCTGCG
GGCATTG
GCATTGC
ACGGTTG
CGGTTGA
CCGGTTG
CCAC
TGATTTA
GATTTAG
CTGCCGG
TGCCGGG
TCCGG
ACTGCCG
AACGCA
AATCCGG
CACTGCA
AAACGCA
ACTGCCT
GAAACGC
GATCCGG
TGAAACG
CACTGC
ATGAAAC
CGATCCG
CATGAAA
CCATGAA
TCCATGA
ATCCATG
CATGAAC
TCGATCC
CATCCAT
ATCGATC
ACATCCA
AACATCC
CAACATC
CTGCGAT
TGCGATG
GTTCTGA
TTCTGAT
TATCGAT
AAACAGT
AACAGTT
TAATGAG
AATGAGA
TTATCGA

Green edges can be inferred from blue



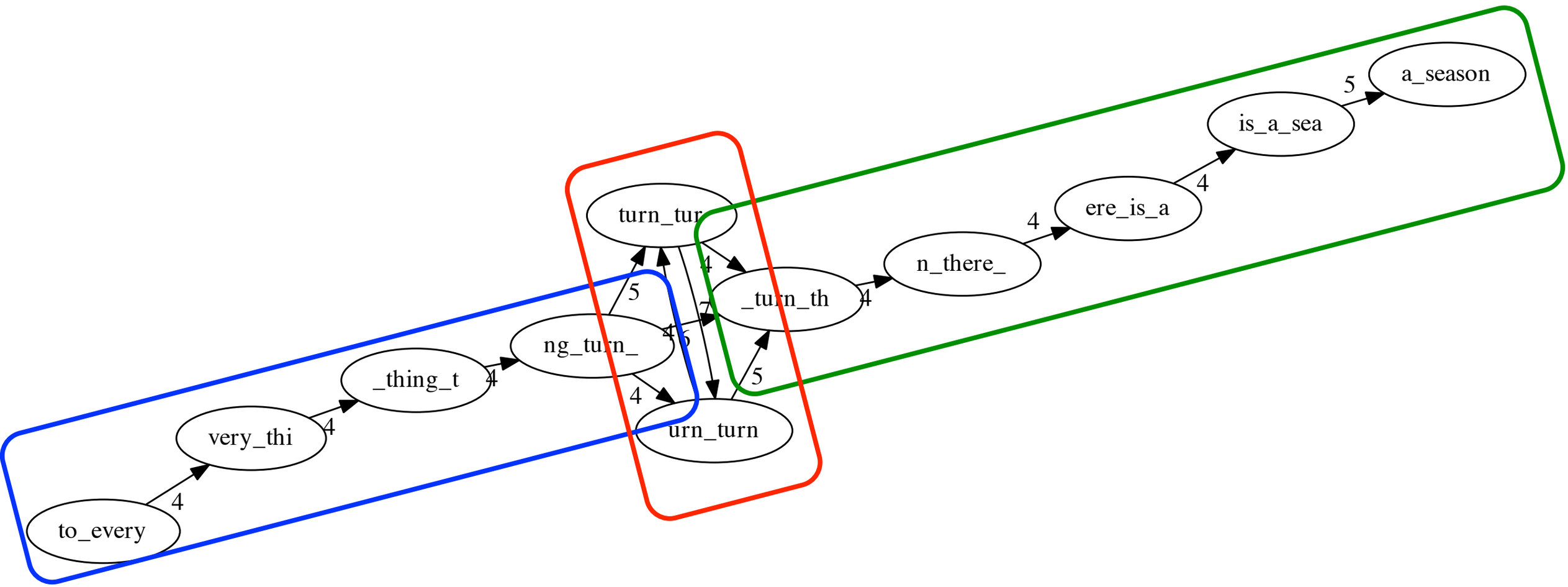


Maternal

GTAGTCTCGGCATATGCGCCG

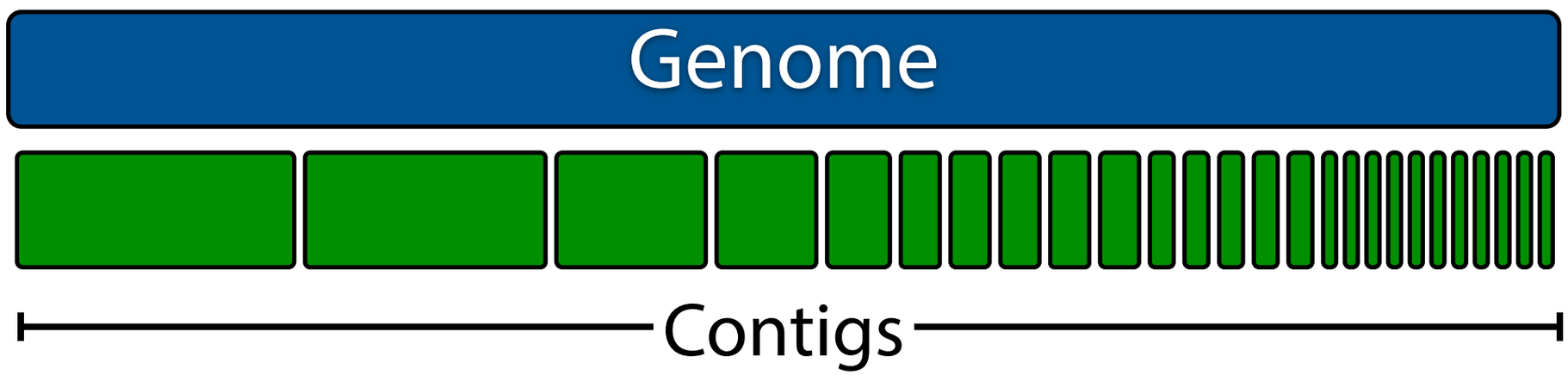
GTAGTCTCGGTATATGCGCCG

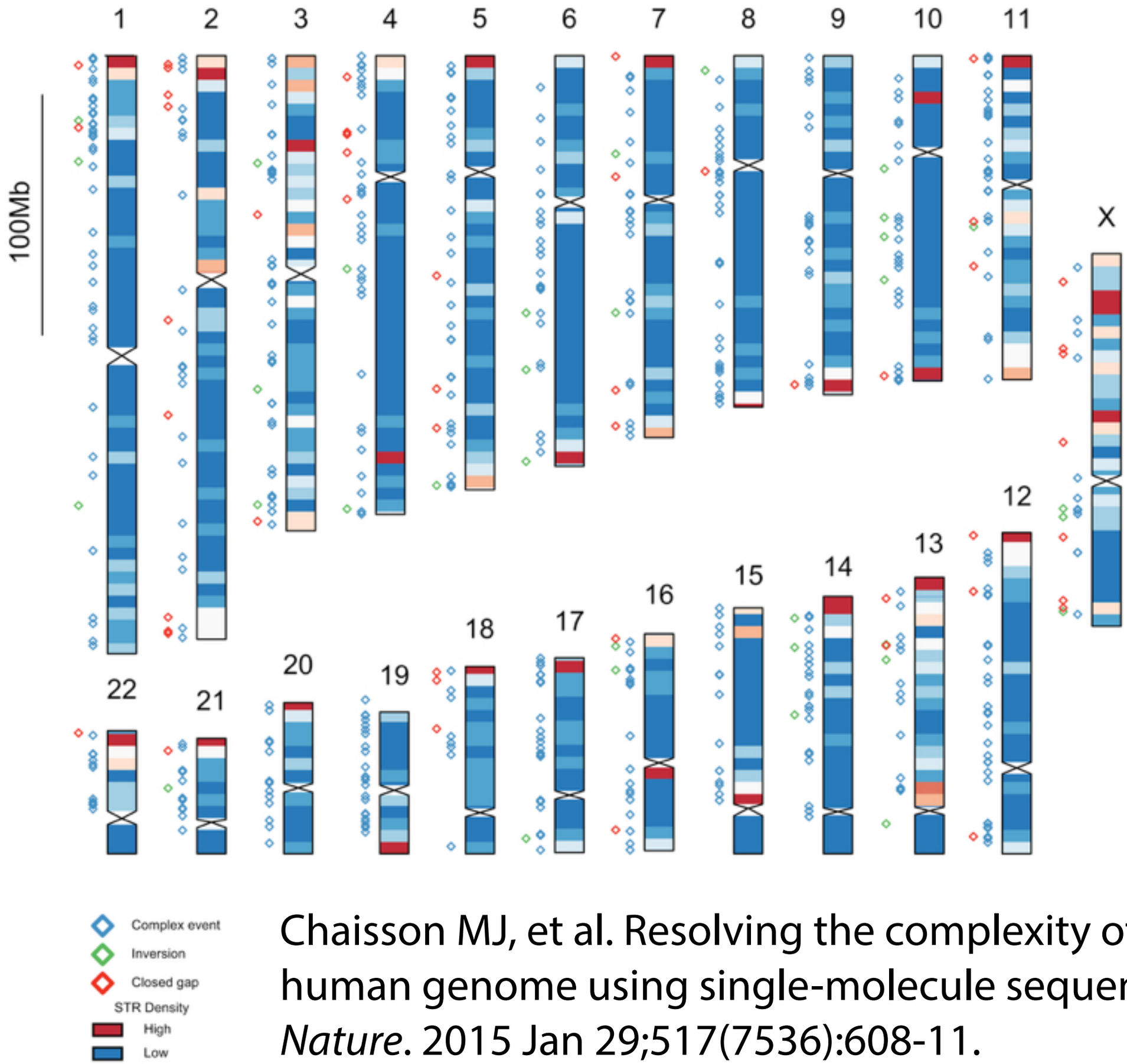
Paternal



to_every_thing_turn_ _turn_there_is_a_season

_turn (repeated)


Genome
Contigs



Chaisson MJ, et al. Resolving the complexity of the human genome using single-molecule sequencing. *Nature*. 2015 Jan 29;517(7536):608-11.