LMU LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

SPLIT Assembly workshop

OVERVIEW

Some (!) BACKGROUND:

Genome assembly HANDS-ON:

BACKGROUND

GENERAL INTRO:
https://www.youtube.com/watch?v=KASvlXYPCBI

PAIRED_ENDs:
https://www.youtube.com/watch?v=WTbnk91e2WU

NAIVE DNA ASSEMBLY:
https://www.youtube.com/watch?v=sseqEefj6Gs

GREEDY ASSEMBLY:
https://www.youtube.com/watch?v=KO2UaG8eKEw

OVERLAP LAYOUT CONCSENSUS ASSEMBLY:
https://www.youtube.com/watch?v=hB2i_Uwm-HQ

DEBRUIJN GRAPH ASSEMBLY:
https://www.youtube.com/watch?v=OY9Q_rUCGDw

BACKGROUND

Further (detailed) information (e.g.):
https://www.youtube.com/playlist?list=PL2mpR0RYFQsBiCWVJSvVAO3OJ2t7DzoHA

HANDS-ON

1. getting data from ncbi
2. raw read quality control
3. read processing
4. post-processing read quality control
5. more short read statistic
6. long read (pacbio) & hybrid (Illumina, pacbio) assemblies
7. contig merging and scaffolding (with nanopore reads)
8. assembly evaluations (QUAST, BUSCO3)