

Record Keeping in Computing



Good enough practices in scientific computing

Greg Wilson¹[•]*, Jennifer Bryan²[•], Karen Cranston³[•], Justin Kitzes⁴[•], Lex Nederbragt⁵[•], Tracy K. Teal⁶[•]

http://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1005510



Record Keeping in Computing



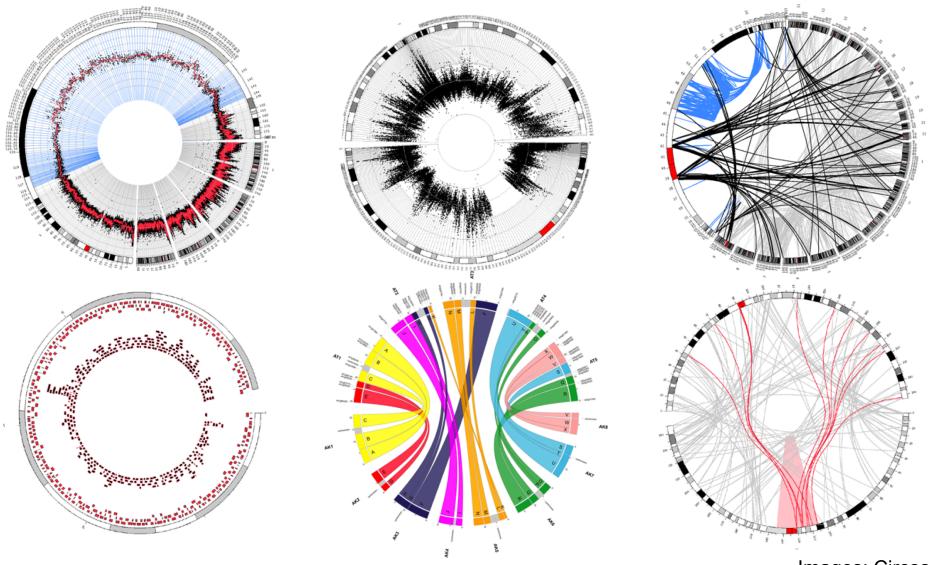


Record Keeping in Computing

Introduction to R and R Markdown

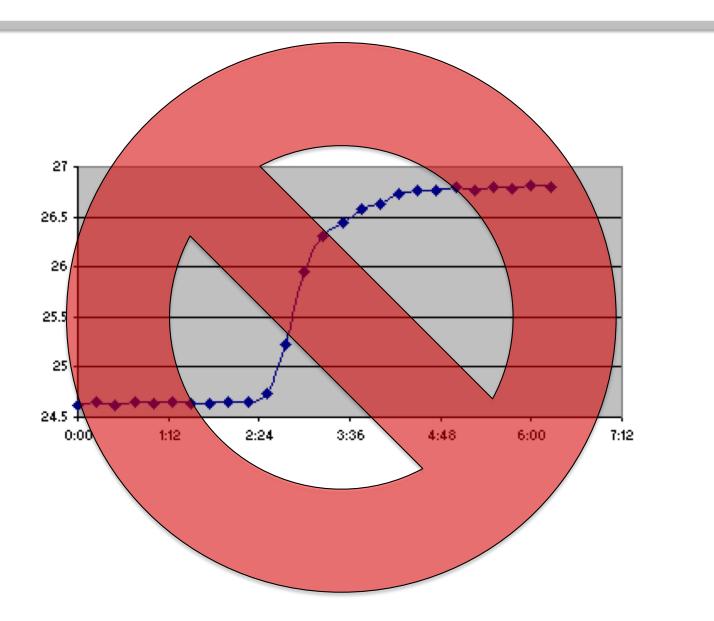
https://dbsloan.github.io/TS2018/exercises/r_markdown.html





Images: Circos.ca







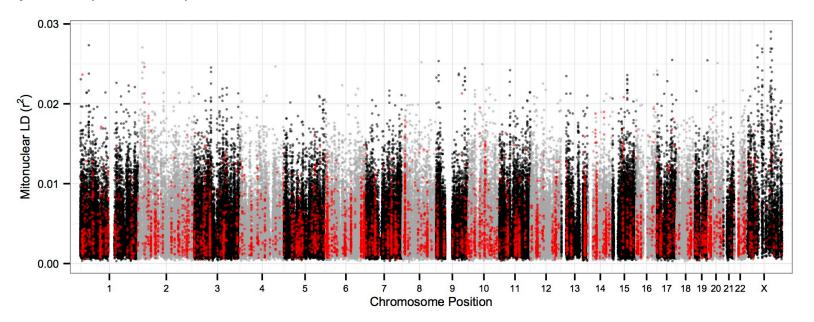
Quality Figures for Papers and Presentations

- Clear and accurate representation of your data
- Clean, professional, and aesthetically pleasing appearance
- Efficient, reproducible, and automated



Writing Code to Generate Figures

ggplot(cnld) + geom_point(aes(x=CumPos, y=r2, size=0.75, colour=as.factor(ChromPrint), alpha = 1/8)) + scale_size_identity() + theme_bw(base_size=15) + scale_color_manual(values=c(rep(c('black', 'dark gray'),11), 'black', 'red')) + scale_x_continuous(expand = c(0.015, 0.015),labels=c(as.character(1:chrNum), "X"), breaks=bpMidVec) + theme(plot.margin = unit(c(0.03,0.03,0.03,0.03), "in"), legend.position='none', axis.text.x = element_text(size=6), axis.text.y = element_text(size=7), axis.title.x = element_text(size=8), axis.title.y = element_text(size=8)) + xlab('Chromosome Position') + ylab(expression(paste("Mitonuclear LD (",r^2, ")")))





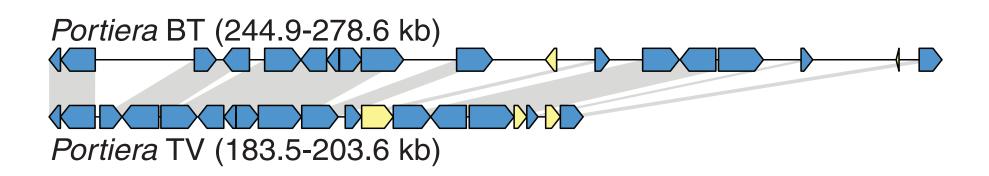




Plotting Genomic Data with R and ggplot

https://dbsloan.github.io/TS2018/exercises/ggplot.html







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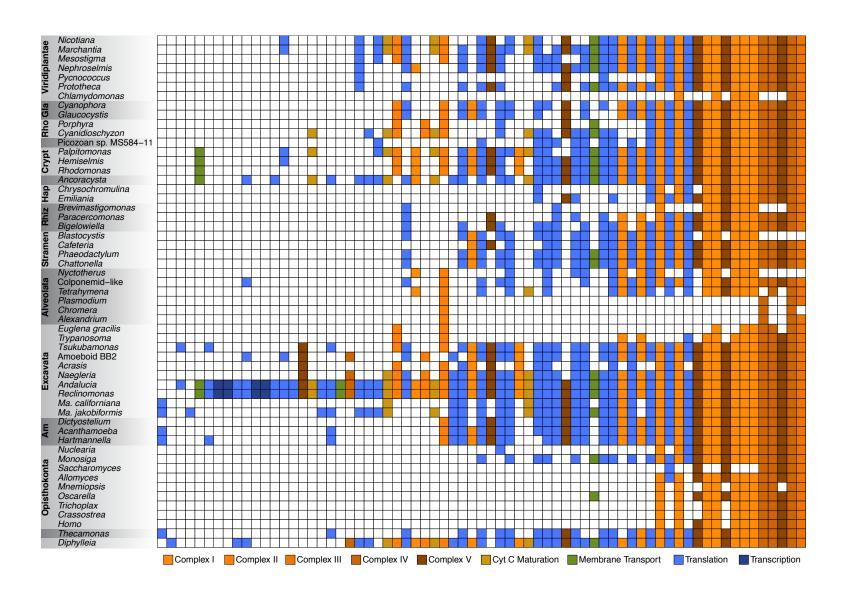
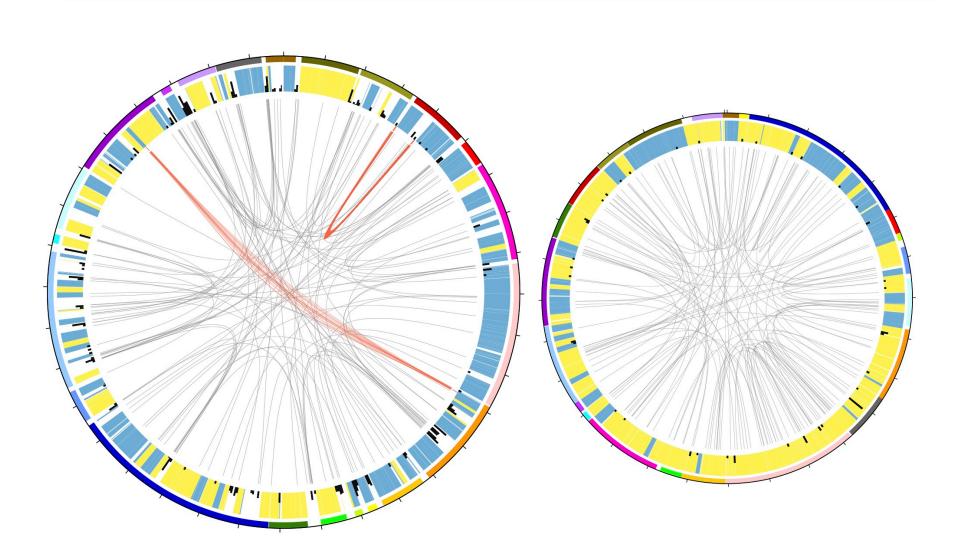




Figure Drawing in R

https://dbsloan.github.io/TS2018/exercises/r_figure_drawing.html







Visualizing Genomic Data with Circos

https://dbsloan.github.io/TS2018/exercises/circos.html