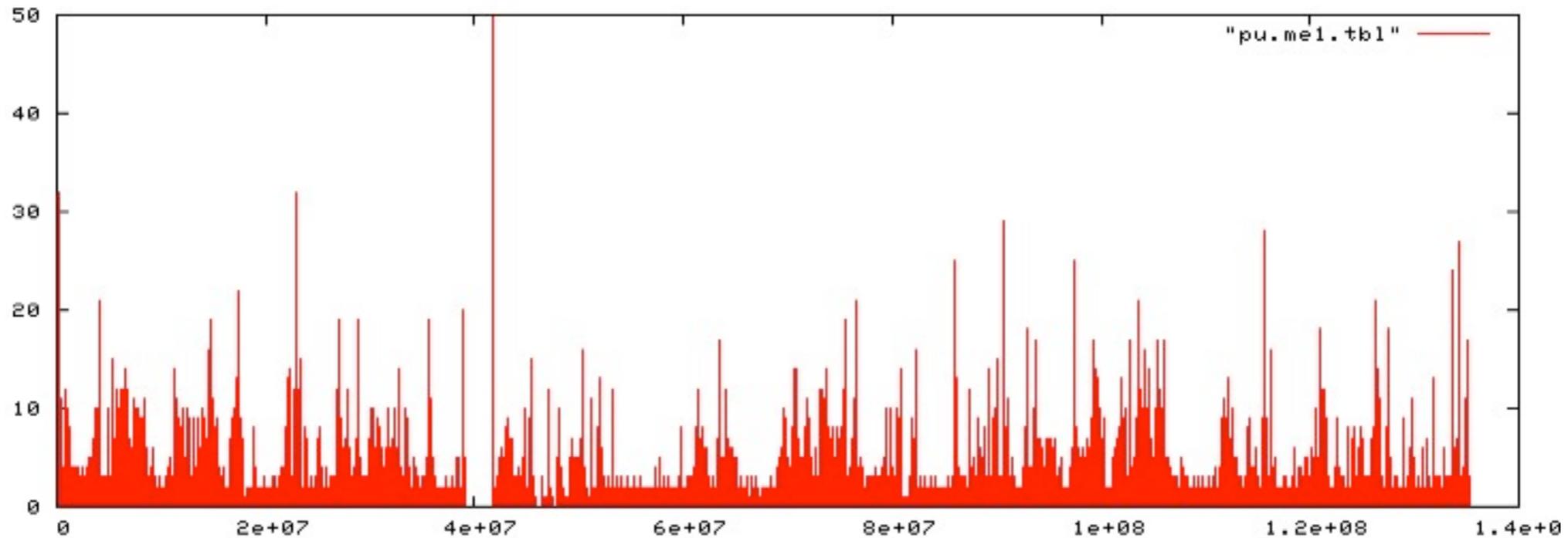


Pile-up plot for chromosome 10

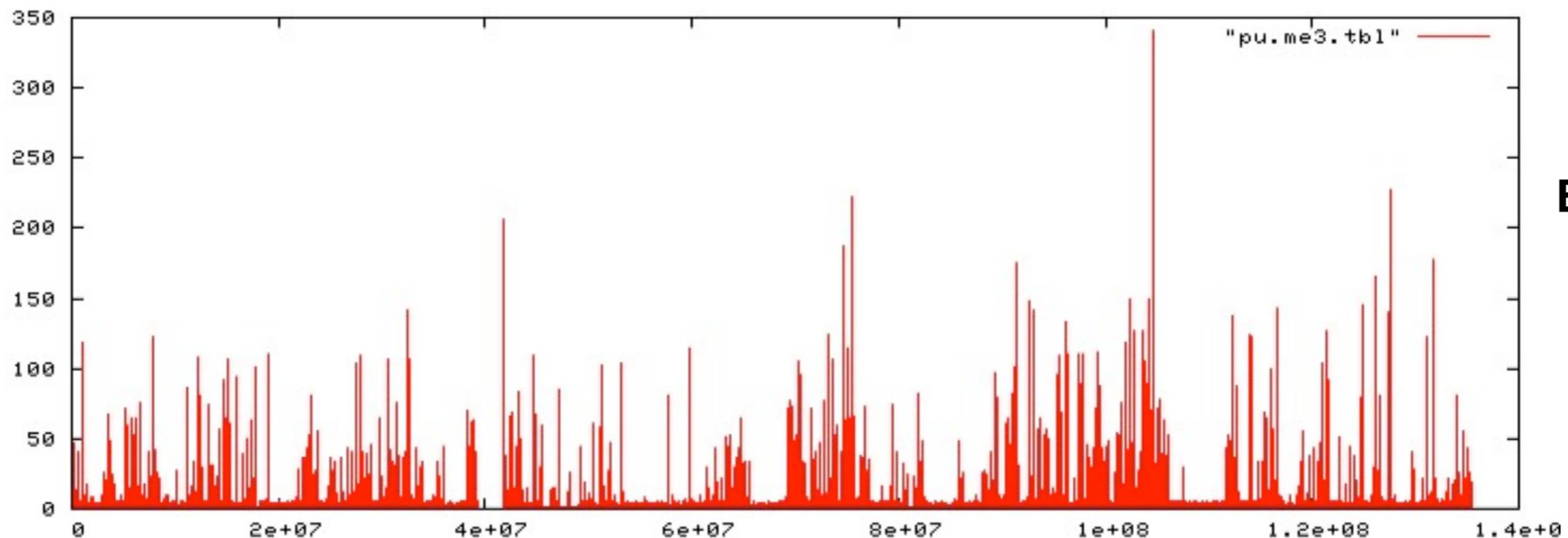
H3K4me

1



H3K4me

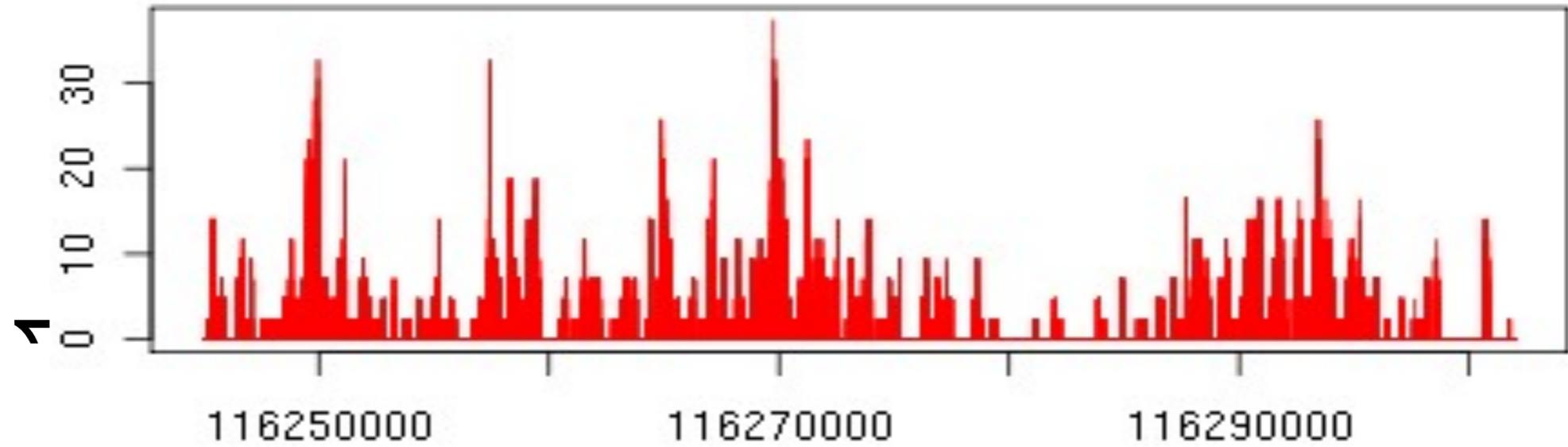
2



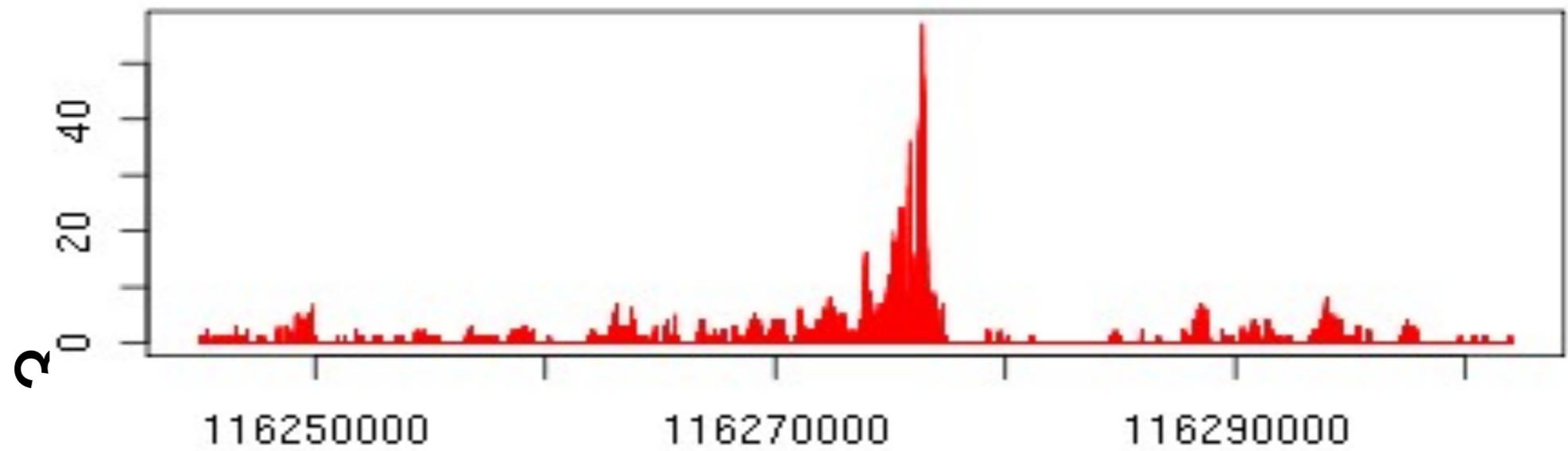
ChIP-Seq
Barski *et al.*
Cell 2007

Zoom-in

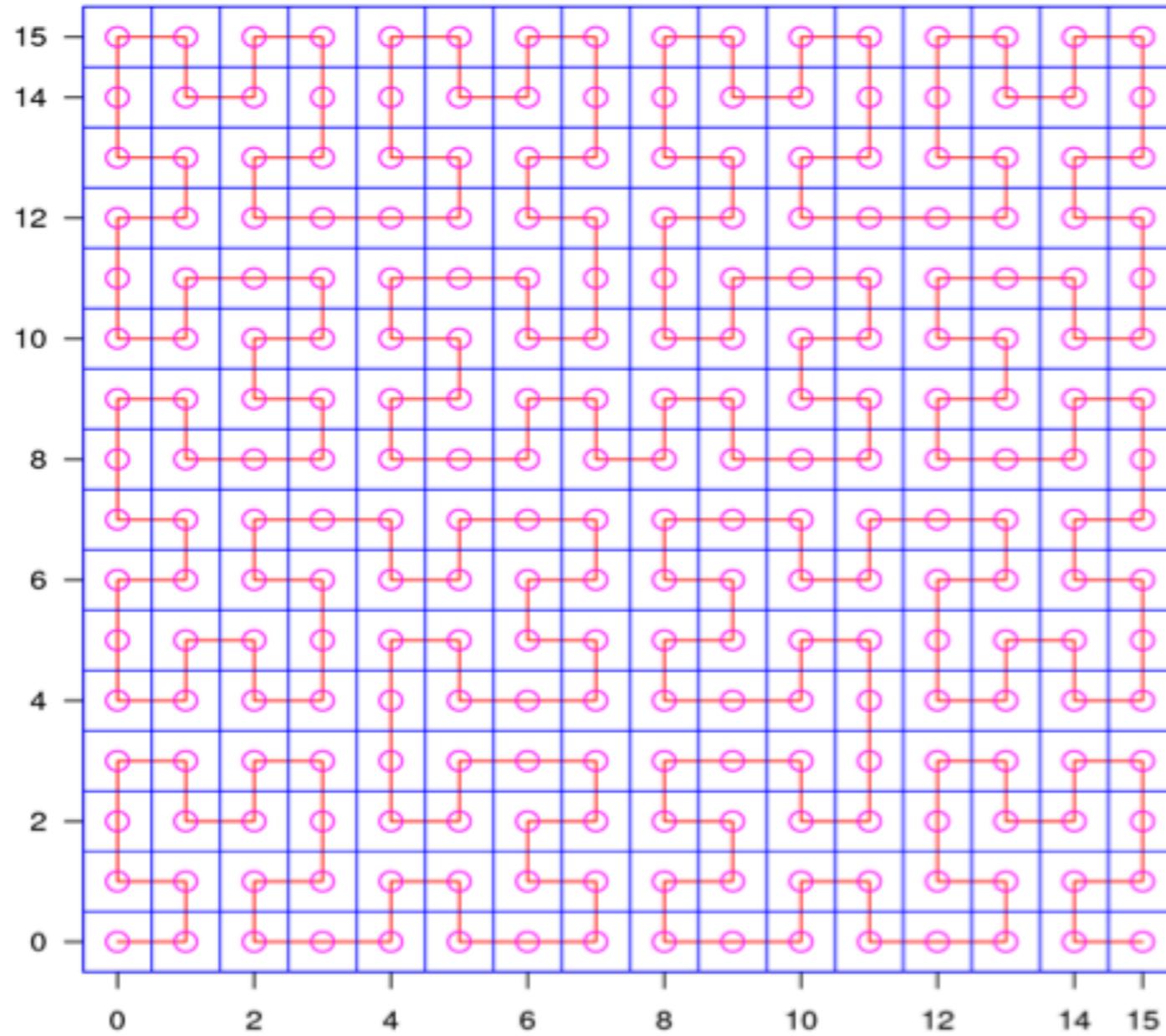
H3K4me



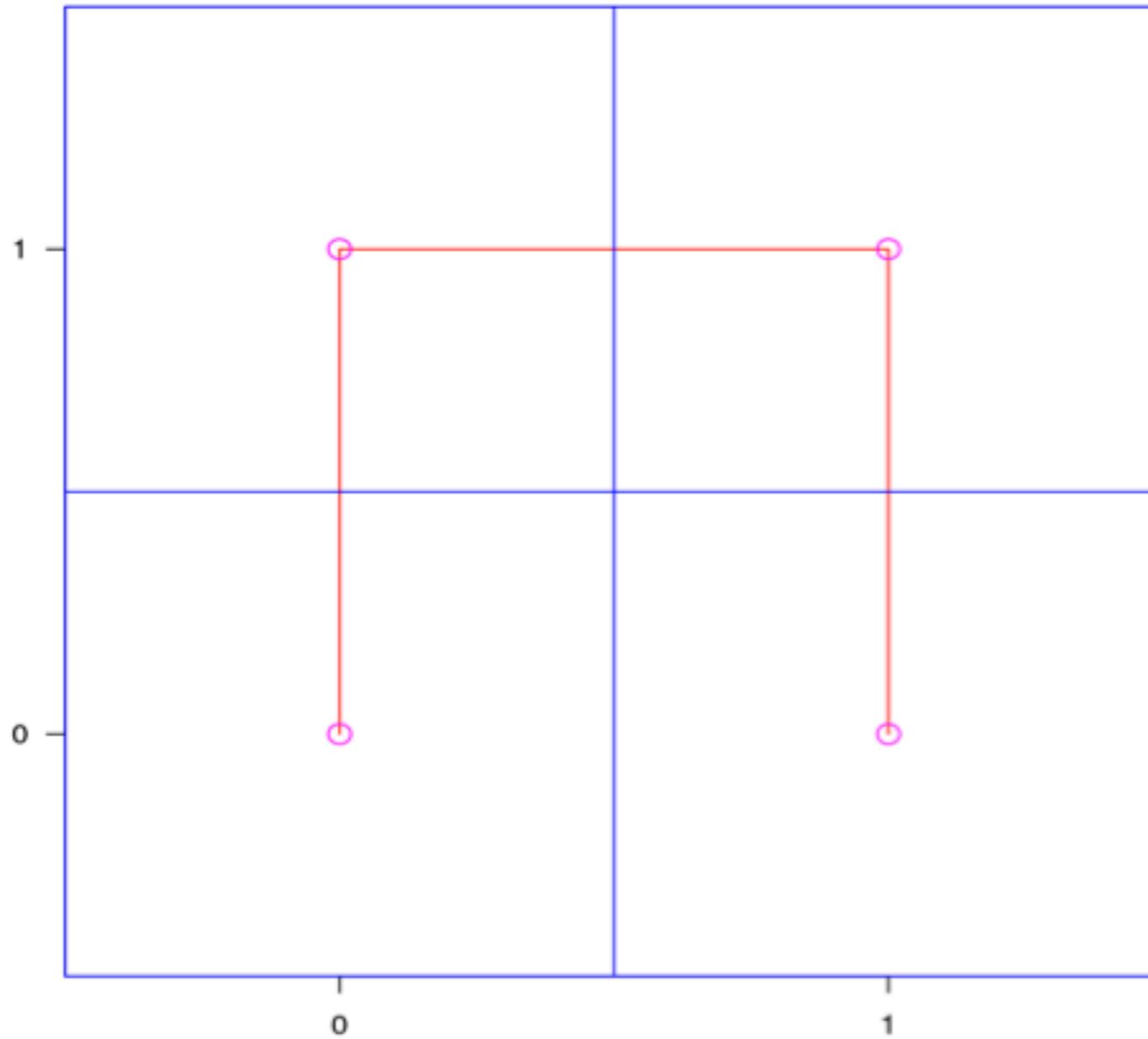
H3K4me



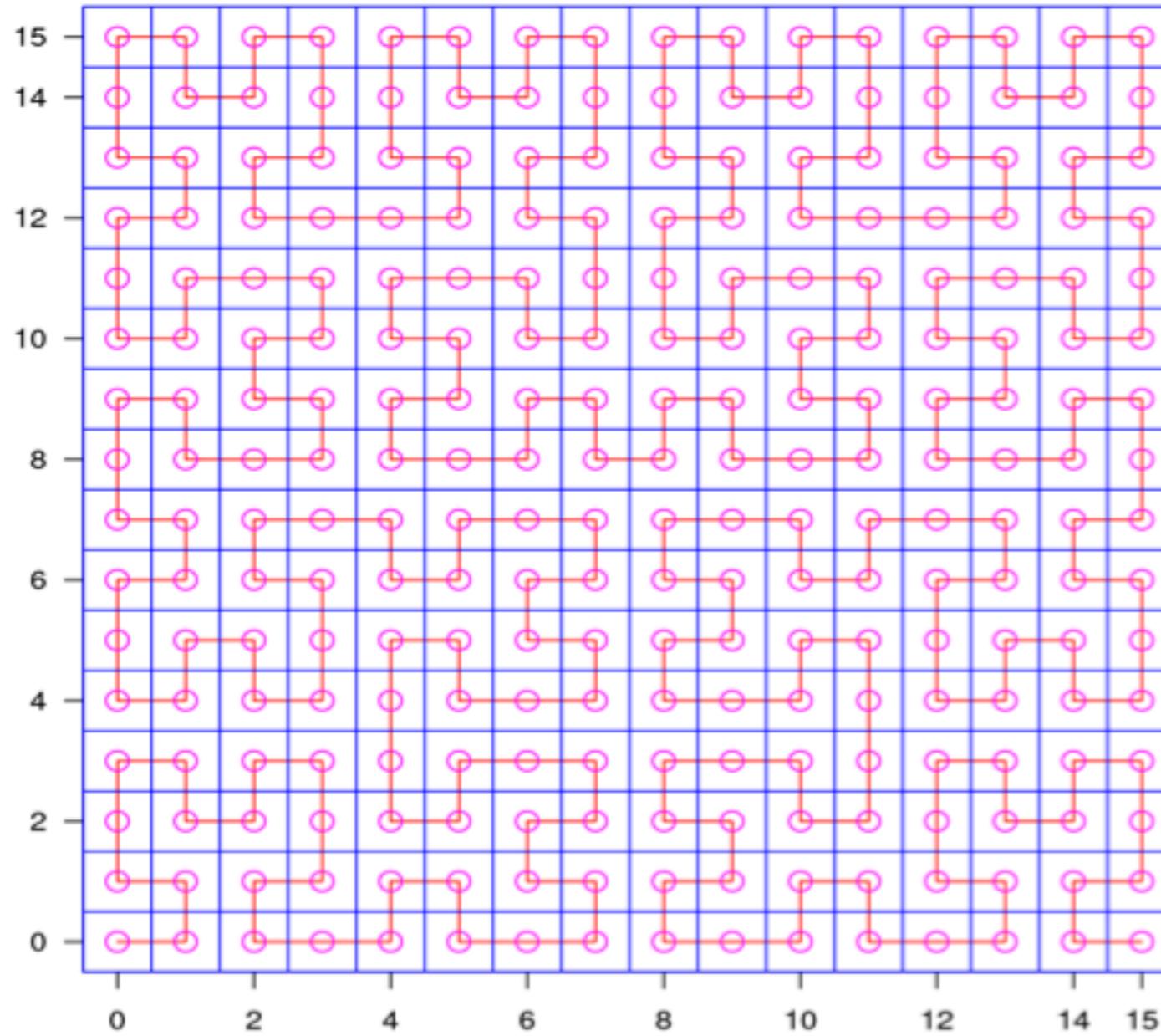
Hilbert curve



Hilbert curve, iteration 1

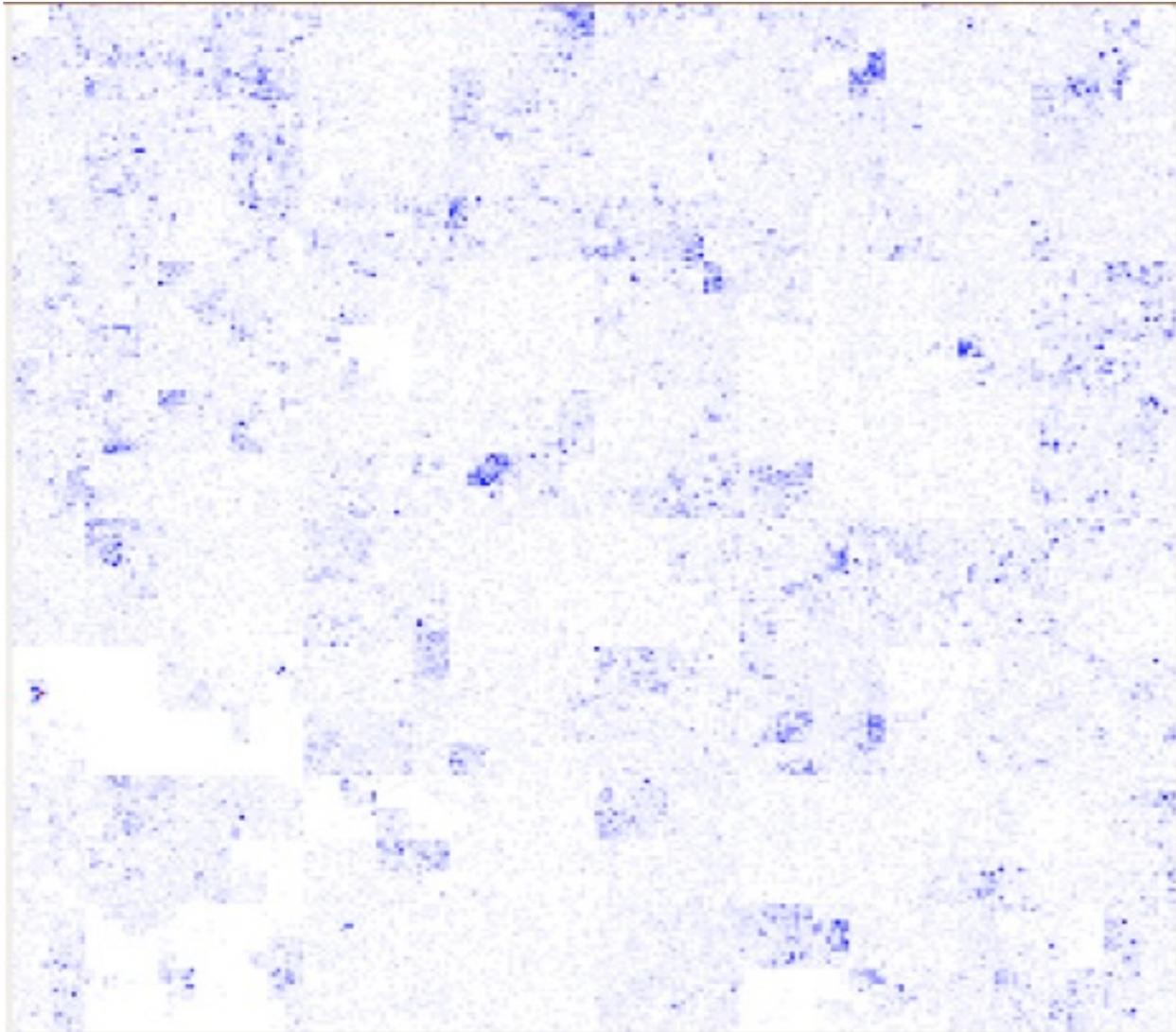


Hilbert curve, iteration 4

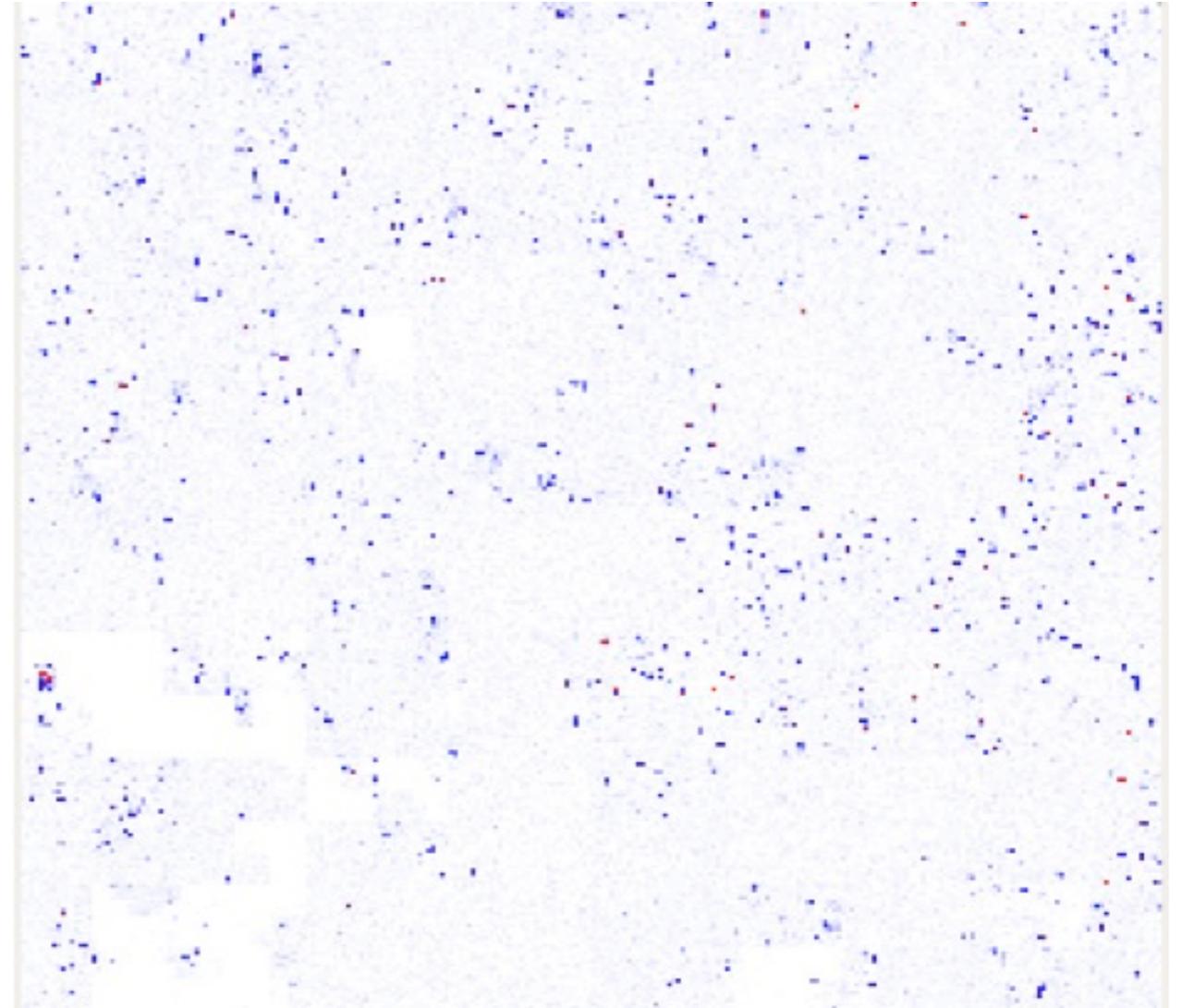


Hilbert plots of chromosome 10

H3K4me1



H3K4me3



History

The concept of space-filling curves is due to Giuseppe Peano (1890).

This specific curve has been invented by David Hilbert (1891).

The idea to use these curves for visualization was first published by Daniel Keim (1996) for economics data.

3-colour Hilbert plot

red:

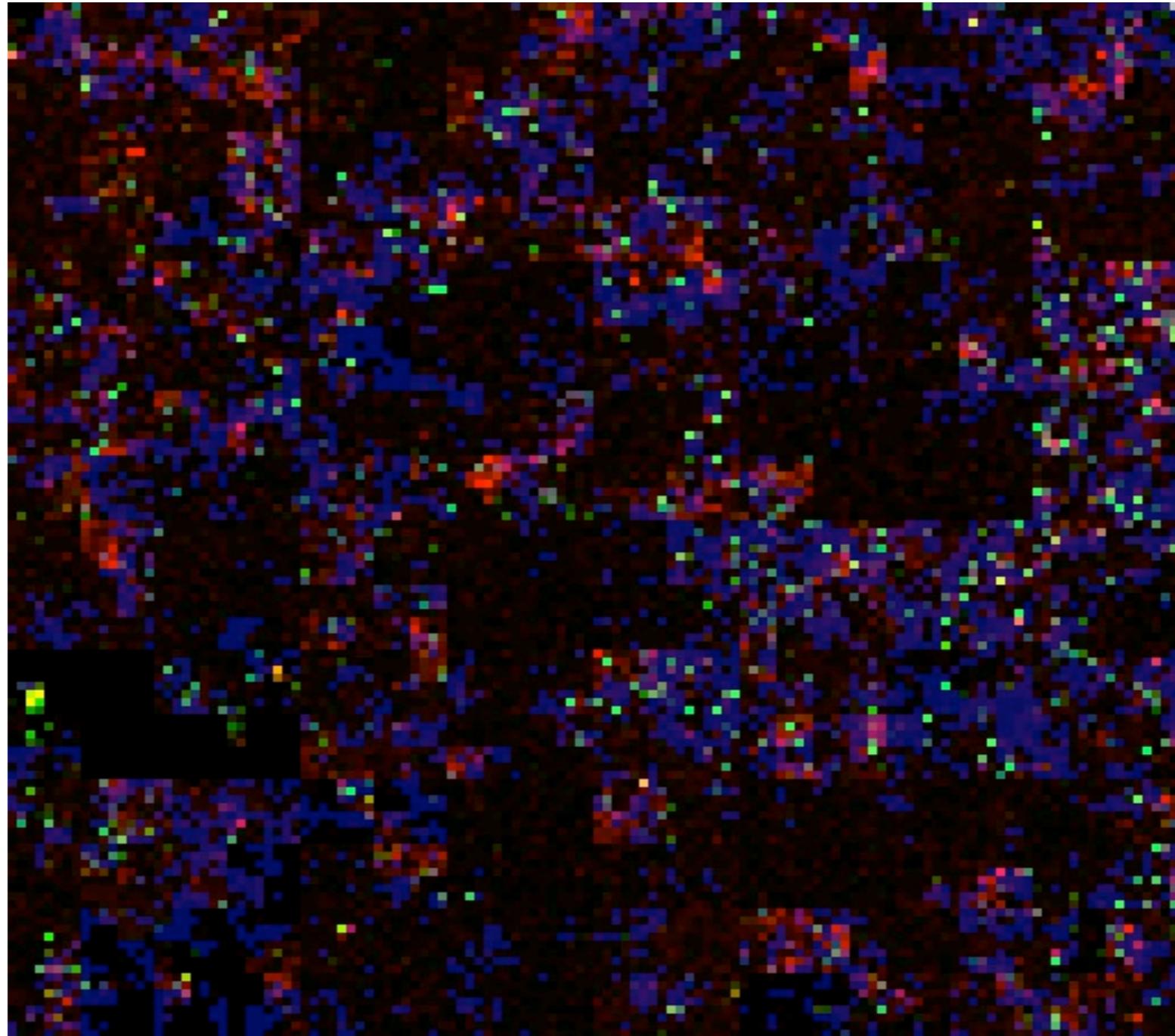
H3K4me1

green:

H3K4me3

blue:

exons



Bioconductor packages HilbertVis & HilbertVisGUI

Stand-alone application:
reads GFF and wiggle
track files (incl. BED)



Simon
Anders

