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# The 3D colors of chromatin

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## Abstract

Contact maps obtained with Chromosome Conformation Capture techniques and their derivatives are signatures of the 3D folding of the genome in the cell nuclei. It is however usually difficult to interpret these maps in terms of realistic 3D structures. Several tools were recently developed to solve this problem. I will present some of these approaches with an emphasis on ShRec 3D which was developed in the lab to address this problem on large datasets [1]. We now applied this tool to high resolution human data-sets [2] and compare the 3D genome fold with the different chromatin epigenetic states, or colors [3].

Lesne et al., Nature Methods, 2014

Rao et al., Cell, 2014

Ernst and Kellis, Nature Biotechnology, 2015

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