

Chromosome Painting

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We consider the most simple stochastic model of neutral population genetics with recombination: 1) We assume that at time 0, all individuals of a haploid population have their unique chromosome painted in a distinct color; 2) At rare birth events, due to recombination modeled as a single crossing-over, the chromosome of the newborn is a mosaic of its two parental chromosomes. When t is large, after fixation has occurred, all individuals end up with the same mosaic of colors on their chromosome. How does this mosaic look like? We will display mathematical results and will show massive simulations as well as data from evolutionary experiments on *Caenorhabditis elegans* in Henrique Teotonio's lab (ENS, Paris).

Références

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