

ABSTRAK

DISTRIBUSI PEWARISAN GENOM  
YANG IDENTICAL BY DESCENT  
PADA KLSUS DUA INDIVIDU BERSAUDARA KANDUNG (FULL  
SIBS) DAN DUA INDIVIDU BERSAUDARA TIRI (HALF SIBS)

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Di sini Rantai Markov dengan parameter kontinu diaplikasikan pada pewarisan genom untuk kasus dua individu yang bersaudara kandung (Full Sibs) dan bersaudara tiri (Half Sibs). Banyak keadaan untuk Full Sibs dan Half Sibs masing-masing adalah tiga dan dua.

Pada kedua kasus dipelajari periode dari setiap keadaan, Lestasioneran, dan ditentukan fungsi kumulatif dari banyak subsegmen dari suatu segmen kromosom dengan panjang  $t$  (Morgan) yang masing-masing mempunyai dua atau paling sedikit satu atau satu haplotype yang diwariskan 1BD oleh ayah dan atau ibunya. Fungsi distribusi tersebut dipelajari melalui fungsi pembangkit momen.

***Katti knack*** Full Sibs, Half Sibs, Rantai Markov dengan parameter kontinu, fungsi pembangkit momen, fungsi distribusi kumulatif.

## ABSTRACT

DISTRIBUTION OF GENOME SHARED IDENTICAL BY  
DESCENT FOR A PAIR OF FULL SIBS AND A PAIR OF HALF  
SIBS

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This thesis will allow Markov Chain's application in genome shared identical by descent by two individual at full sibs model and half sibs model. Full sibs model was a continuous time Markov Chain with three state. Half sibs model was a continuous time Markov Chain with two state.

In full sibs model, we analysed periode for every state, stationery, and the number of distinct pieces of a chromosomal segment of length  $t$  (Morgan), on each of which 2 or at least 1 haplotypes are shared identical by descent cumulative distribution function. In half sibs model, we analysed periode for every state, stationery, and the number of distinct pieces of a chromosomal segment of length  $t$  (Morgan), on each of which 1 haplotypes are shared identical by descent cumulative distribution function. This cumulative distribution function analysed by moment generating function.

*Keywords:* Full Sibs, Half Sibs, a continuous time Markov Chain, moment generating function, annul ati ve distribution function.

