

## ABSTRAK

Solusi 3-soliton dari persamaan Korteweg-de Vries (KdV) dapat diperoleh dengan Metode Hirota. Reformulasi solusi 3-soliton dinyatakan sebagai superposisi solusi masing-masing individu soliton. Sedangkan bentuk asymptotik solusi 3-soliton diperoleh melalui proses pelimitan terhadap parameter  $t$ . Pergeseran fase dari masing-masing individu soliton dibahas secara detail berdasarkan bentuk asymptotiknya. Dari analisis ditunjukkan bahwa soliton pertama selalu mengalami pergeseran fase (maju), soliton kedua mempunyai beberapa kemungkinan, yaitu tidak mengalami pergeseran fase, mengalami pergeseran fase maju, atau mengalami pergeseran fase mundur, dan soliton ketiga selalu mengalami pergeseran fase (mundur).

## ABSTRACT

The solution of 3-soliton for Korteweg-de Vries (KdV) equation can be obtained by the Hirota Method. The reformulation of the 3-soliton solution was represented as the superposition of the solution of each individual soliton. Moreover, the asymptotic form of 3-soliton solution was obtained by limiting of the  $t$  parameter. The phase shift of each individual soliton are analysed in detail base its asymptotic form. The results of the analysis shown that the first soliton always have a phase shift called forward, the second soliton have some possibility (there is no phase shift, have a forward phase shift, or have a backward phase shift), and for the third soliton always have a phase shift called backward.

