SEMIDEMPOTENTS IN LOOP ALGEBRAS

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After Gray an element $\alpha \neq 0$ of a ring $R$ is called a semi-idempotent if and only if $\alpha$ is not in the proper two sided ideal of $R$ generated by $\alpha^2 - \alpha$, that is $\alpha \notin R (\alpha^2 - \alpha) R$ or $R = R (\alpha^2 - \alpha) R$, where by $R (\alpha^2 - \alpha) R$ we mean the two sided ideal of $R$ generated by $\alpha^2 - \alpha$. Semi idempotents in group rings has been studied and characterized by the author. In this paper we initiate the study of semi idempotents in loop algebras.