

THE CONSTRUCTION OF COMPLETED  
SKEW GROUP RINGS. II

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**Abstract.** Given a profinite group  $G$  acting on a profinite ring  $R$  via  $\sigma : G \rightarrow \text{Aut}R$  (with finite image) we will construct the completion of the skew group ring  $R * G$  as a inverse limit of skew group rings of type  $R * (G/N)$ , where  $N$  is a open invariant subgroup of  $G$  contained in  $\ker \sigma$ .

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**Key words.** Skew group ring, compact ring, profinite group (ring), completion of a topological ring.

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