a dense subset, in the fine C^0 topology, of the set of topological imbeddings of U into l_2.

The proof of this theorem, which requires the alternative form of Theorem 1, is similar to the proof of Theorem 2 and is therefore omitted. The principal modification needed consists in allowing the maps $F_{c,r,i,j,m}$, (which are now defined on l_2 in the obvious way using (9)-(9)'''), to act now on the *left* of the imbeddings via a suitably defined infinite left composition, and where the positive integer j is not subject to the condition $j \leqq n$ of Theorem 2.

Correction to

DIMENSION THEORY IN POWER SERIES RINGS

DAVID E. FIELDS

Volume 35 (1970), 601-611

While recently answering a letter of inquiry of T. Wilhelm, I discovered an error in Corollary 4.6. The result, as originally stated, clearly requires that $P \cdot V[[X]] \subset P[[X]]$. However, if P is not branched, it is possible that $P \cdot V[[X]] = P[[X]]$; a counterexample can be obtained from Proposition A.

The following modification of Corollary 4.6 is sufficient for the proof of Theorem 4.7.

COROLLARY 4.6′. *Let V be a valuation ring having a proper prime ideal P which is branched. If P is idempotent, then there is a prime ideal Q of $V[[X]]$ which satisfies $P \cdot V[[X]] \subsetneqq Q \subset P[[X]]$.*

Proof. Since P is branched, there is a prime ideal $\bar{P}$ of V with $\bar{P} \subset P$ and such that there are no prime ideals of V properly between $\bar{P}$ and P [1; 173]. By passing to $V[[X]]/\bar{P}[[X]]$ $(\cong(V/\bar{P})[[X]])$, we may assume that P is a minimal prime ideal of V.

Since P is idempotent, PV_P is idempotent by Lemma 4.1; hence V_P is a rank one nondiscrete valuation ring. By Theorem 3.4, there is a prime ideal Q of $V_P[[X]]$ such that $(PV_P) \cdot V_P[[X]] \subsetneqq Q \subset (PV_P)[[X]]$. But then we see that $Q \subset (PV_P)[[X]] = P[[X]] \subsetneqq V[[X]]$. Hence $Q \cap V[[X]] = Q$ and Q is a prime ideal of $V[[X]]$ with $P \cdot V[[X]] \subsetneqq Q \subset P[[X]]$.

The following result is now of interest.

PROPOSITION A. *Let V be a valuation ring having a proper prime ideal P which is not branched; then $P = \bigcup_{\lambda \in \Lambda} M_\lambda$, where $\{M_\lambda\}_{\lambda \in \Lambda}$ is the collection of prime ideals of V which are properly contained in P. In this case, $P \cdot V[[X]] = P[[X]]$ if and only if* (*) *given any countable subcollection $\{M_{\lambda_i}\}$ of $\{M_\lambda\}$, $\bigcup_{i=1}^\infty M_{\lambda_i} \subset P$.*

Proof. Assuming (*), let $f(X) = \sum_{i=0}^\infty f_i X^i \in P[[X]]$. For each i, $f_i \in M_{\bar{\lambda}_i}$ for some $\bar{\lambda}_i \in \Lambda$. Let $p \in P$, $p \notin \bigcup_{i=0}^\infty M_{\bar{\lambda}_i}$; since $p \notin M_{\bar{\lambda}_i}$, it follows that $f_i \in M_{\bar{\lambda}_i} \subseteqq (p)V$ for each i and $f(X) \in (p)V[[X]] \subseteqq P \cdot V[[X]]$.

Conversely, assuming that (*) fails, let $\{M_{\lambda_i}\}_{i=1}^\infty$ be a countable subcollection of $\{M_\lambda\}_{\lambda \in \Lambda}$ such that $\bigcup_{i=1}^\infty M_{\lambda_i} = P$. By extracting a subsequence of $\{M_{\lambda_i}\}$, we may assume that $M_{\lambda_i} \subset M_{\lambda_{i+1}}$ for each i. Let $f_i \in M_{\lambda_{i+1}}$, $f_i \notin M_{\lambda_i}$ and let $f(X) = \sum_{i=1}^\infty f_i X^i$; then $f(X) \in P[[X]]$ but $f(X) \notin P \cdot V[[X]]$.

MARSHALL UNIVERSITY

Correction to

COHOMOLOGY OF FINITELY PRESENTED GROUPS

P. M. CURRAN

Volume 42 (1972), 615–620

In the second paragraph of the abstract, p. 615, the first sentence, "If G is generated by n elements, $\cdots$" should read "If G is a residually finite group generated by n elements, $\cdots$".

Correction to

COMMUTANTS OF SOME HAUSDORFF MATRICES

B. E. RHOADES

Volume 42 (1973), 715–719

In [2] it is shown that, for A a conservative triangle, B a matrix with finite norm commuting with A, B is triangular if and only if

(1) for each $t \in l$ and each n, $t(A - a_{nn}I) = 0$ implies t belongs to the linear span of $(e_0, e_1, \cdots, e_n)$. On page 716 of [2] it is asserted that

(2) $(U^*)^{n+1}(A - a_{nn}I)U^{n+1}$ of type M for each n is equivalent to