

## COVER TOPOLOGIES, SUBSPACES, AND QUOTIENTS FOR SOME SPACES OF VECTOR-VALUED FUNCTIONS

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ABSTRACT. Let  $X$  be a completely regular Hausdorff space, and let  $\mathcal{D}$  be a cover of  $X$  by  $C_b$ -embedded sets. Let  $\pi : \mathcal{E} \rightarrow X$  be a bundle of Banach spaces (algebras), and let  $\Gamma(\pi)$  be the section space of the bundle  $\pi$ . Denote by  $\Gamma_b(\pi, \mathcal{D})$  the subspace of  $\Gamma(\pi)$  consisting of sections which are bounded on each  $D \in \mathcal{D}$ . We construct a bundle  $\rho' : \mathcal{F}' \rightarrow \beta X$  such that  $\Gamma_b(\pi, \mathcal{D})$  is topologically and algebraically isomorphic to  $\Gamma(\rho')$ , and use this to study the subspaces (ideals) and quotients resulting from endowing  $\Gamma_b(\pi, \mathcal{D})$  with the cover topology determined by  $\mathcal{D}$ .

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