1068-22-230 **Gábor Lukács*** (lukacs@cc.umanitoba.ca), Department of Mathematics, University of Manitoba, Winnipeg, Manitoba R3T 2N2, Canada. *On abelian bornological and topological groups.* Preliminary report.

Let G be an abelian topological group, and let $\hat{G} := \mathcal{H}(G, \mathcal{T})$ denote its group of continuous characters, where $\mathbb{T} := \mathbb{R}/\mathbb{Z}$. Then $\hat{G}$ admits a natural bornology, namely, its subsets that are equicontinuous on G. This is actually a *group bornology* in the sense that it makes the group operations bounded.

Let A be a (discrete) abelian group, $K := \hom(A, \mathbb{T})$, where $\mathbb{T} := \mathbb{R}/\mathbb{Z}$. If H is a subgroup of K and $\mathcal{B}$ is a group bornology on H, then the topology of uniform convergence on members of $\mathcal{B}$ is a group topology on A.

While these constructions are well-known (cf. [**?**], and [**?**]), it appears that they have never been investigated from a categorical point of view. The aim of this talk is to remedy this.

References

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