Spaces of Quasi-Measures

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Abstract. We give a direct proof that the space of Baire quasi-measures on a completely regular space (or the space of Borel quasi-measures on a normal space) is compact Hausdorff. We show that it is possible for the space of Borel quasi-measures on a non-normal space to be non-compact. This result also provides an example of a Baire quasi-measure that has no extension to a Borel quasi-measure. Finally, we give a concise proof of the Wheeler-Shakmatov theorem, which states that if $X$ is normal and $\dim(X) \leq 1$, then every quasi-measure on $X$ extends to a measure.