

# An internal characterization for productively Lindelöf spaces

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A topological space  $X$  is said to be productively Lindelöf if  $X \times Y$  is Lindelöf for every Lindelöf space  $Y$ . We present an internal characterization for the productively Lindelöf property, thus answering a long-standing problem attributed to Tamano. The technique used is to define a topology over the family of all the open coverings of  $X$ .

