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Title: Mahavier limits

Author(s): Mr Yuki Maehara

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Sequential limits have long been valued by continuum theorists (here ‘continuum’ means ‘compact, connected Hausdorff space’) as a useful tool to construct/describe complicated spaces in terms of much simpler ones. When viewed as such a tool, however, the usual notion of limit can sometimes be too restrictive. They thus introduced the notion of Mahavier limit in the 2000s, where the continuous maps in the diagram are replaced by upper semi-continuous, closed set-valued functions.

This talk will be based on my honours thesis, in which I characterised Mahavier limits by a certain universal property that looks somewhat similar to the definition of oplax limits in 2-category theory. I will also discuss some of my recent findings such as how Mahavier limits can be seen as enriched weighted limits.