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Hans Schoutens* (hschoutens@citytech.cuny.edu). *Ordinal length and local cohomology.*

The submodules in a Noetherian module are well-ordered for reverse inclusion, and the longest chain obtained this way is called the ordinal length of the module. I will show that this ordinal can be calculated via local cohomology. Conversely, by duality, we can also associate an ordinal length to any local cohomology group, thus obtaining a finitistic invariant measuring the local cohomology group. (Received January 31, 2018)