



# A construction of 2-cofiltered bilimits of topoi

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We show the existence of bilimits of 2-cofiltered diagrams of topoi, generalizing the construction of cofiltered bilimits developed in "SGA 4 Springer LNM 270 (1972)". For any given such diagram, we show that it can be represented by a 2-cofiltered diagram of small sites with finite limits, and we construct a small site for the inverse limit topos. This is done by taking the 2-filtered bicolimit of the underlying categories and inverse image functors. We use the construction of this bicolimit developed in "A construction of 2-filtered bicolimits of categories, Cah. Top. et Geo. Diff. Vol. XLVII-2 (2006)", where it is proved that if the categories in the diagram have finite limits and the transition functors are exact, then the bicolimit category has finite limits and the pseudocone functors are exact. An application of our result here is the fact that every Galois topos has points "2-Filteredness and the point of every Galois topos, Proc. CT2007, App. Cat. St., Vol. 18, 2, (2010)".

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