Logikseminariet Stockholm–Uppsala

Peter Schuster
(joint work with Julia Zappe)

Do Noetherian modules have Noetherian basis functions?

In Bishop-style constructive algebra it is known that if a module over a commutative ring has a Noetherian basis function, then it is Noetherian. Using countable choice we prove the reverse implication for countable and strongly discrete modules, and thus partially refute a conjecture made by Mines, Richman, and Ruitenburg. As an application of our result, the Hilbert basis theorem for this specific class of Noetherian modules – but without the usual hypothesis that the modules under consideration are coherent – follows from Tennenbaum's celebrated version of Hilbert's theorem which was tailored for modules with a Noetherian basis function.

Onsdag 15 mars kl. 10.15–12.00,
sal 3513, MIC,
Polacksbacken, Uppsala.

http://www.math.su.se/~jesper/seminarier/