

1159-05-33

Justin Chen, Christopher Eur* (chrisweur@gmail.com), **Greg Yang** and **Mengyuan Zhang**. *Free resolutions in learning theory*.

Function classes are collections of Boolean functions on a finite set, which are fundamental objects of study in theoretical computer science. We study algebraic properties of ideals associated to function classes previously defined by the third author. For a wide family of function classes, we show that the multigraded betti numbers are the Mobius numbers of associated posets. We also discuss some open directions. (Received July 13, 2020)