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**Tatsuki Seto\*** (m11034y@math.nagoya-u.ac.jp). *An index theorem for Toeplitz operators on partitioned manifolds.*

Let  $M$  be a complete Riemannian manifold which is partitioned by a closed hypersurface  $N$  into two submanifolds  $M^-$  and  $M^+$  of codimension 0 with common boundary  $N$ . In 1988, John Roe proved an index theorem on such manifolds, that is, he proved Connes' pairing of the coarse index of the Dirac operator on  $M$  with a cyclic 1-cocycle constructed by the partition equals the Fredholm index of the Dirac operator on  $N$ . Both sides of the index formula vanishes when  $M$  is of even dimension. In this talk, I will talk about a variant of the index theorem with the non-trivial index when  $M$  is of even dimension. For this purpose, we develop the Toeplitz version of the coarse index and we have to use a  $C^*$ -algebra of functions slightly larger than the Higson algebra. (Received January 26, 2019)