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First identification of high-spin states in ¹⁵²Pr SHAOHUA LIU, UNIRIB/ORAU and Vanderbilt University, J.H. HAMILTON, A.V. RAMAYYA, J.K. HWANG, N.T. BREWER, Vanderbilt University, S. YUE, F.R. XU, Peking University, Y.X. LUO, Vanderbilt University and Lawrence Berkeley National Laboratory, J.O. RASMUSSEN, Lawrence Berkeley National Laboratory, S.J. ZHU, Tsinghua University, W.C. MA, Mississippi State University — The odd-odd neutron-rich nucleus ¹⁵²Pr has been studied from the spontaneous fission of ²⁵²Cf with the Gammasphere detector array at Lawrence Berkeley National Laboratory. A high-spin level scheme of ¹⁵²Pr has been established for the first time. Angular correlation and internal conversion coefficient measurements are used to determine level spins and parities in the yrast band of ¹⁵²Pr relative to the band head. The possible configurations of the band head have been discussed based on systematics and total Routhian surface calculations. The results will be presented.

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