

Cyclotron Colloquium, Wednesday, May 17, at 3:00 pm

"Probing Nuclear Structure beyond the Proton Drip Line"

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Understanding nuclei at the limits of existence is a major challenge in nuclear physics and impressive advances in addressing this issue are being achieved. At the limits of proton-rich nuclei, over 30 proton emitters have been discovered to date. This success has been made possible by exploiting recoil separators capable of isolating ephemeral species on microsecond timescales and implanting them into a position sensitive silicon detector system. This talk will evaluate the prospects for further progress using this methodology, explore ideas for extending proton-emission studies into the nanosecond regime and review other current approaches to learning about the structure of these remote nuclei.