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Search for RPV SUSY through its Purely Hadronic Decay Modes ARIE MELAMED-KATZ, EHUD DUCHOVNI, Weizmann Institute — Two search procedures for signals of R-Parity Violating SUSY at ATLAS are discussed. The first one makes use of R-Parity Conserving production of a sparton pair followed by their RPV decay. The present procedure differs from previously proposed ones in two aspects: It does not require the presence of an identified lepton in the final state; and it makes use of b-tagging. The second channel is the resonating squark production through RPV coupling followed by its RPV decay into two quarks. Here also one can benefit from the use of b-tagging. The discovery potential of ATLAS in these two channels is evaluated.

> Frank Merritt University of Chicago

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