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**The Variations of Modularity in Patients' Heart Rates during the Spontaneous Breathing Trial** LIANG NIESTEMSKI, Western New England Univ, TIMOTHY BUCHMAN, Emory University, MICHAEL DEEM, Rice University — The spontaneous breathing trial (SBT) is a frequent procedure in critical care during which mechanical ventilation is briefly suspended while the patient breathes for a time without that support. We study the variations of the patients' Heart rates before, during, and after the SBT. Time dependent covariance matrices are constructed from Heart rates data and modularity of such matrices are investigated. The results show that environmental pressure induces high modularity during SBT.

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