1106-41-1956　　　　**Benjamin Aaron Bailey*** (`benjamin.bailey@uconn.edu`), Department of Mathematics, 196 Auditorium Road U-3009, Storrs, CT 06269, and **W. R. Madych** (`wolodymyr.madych@uconn.edu`), Department of Mathematics, 196 Auditorium Road U-3009, Storrs, CT 06269. *Representation by the Cardinal Sine Series.*

Many aspects of the cardinal sine series, particularly those associated with the mathematical theory of sampling in signal processing, are very well known due to its role in the classical sampling theorems. The objective of this talk is to highlight several extensions of these classical theorems and to provide corresponding examples. We present (i) necessary and sufficient conditions for convergence of the series, (ii) general convergence properties and growth rates of the series, and (iii) several new classes of entire functions that can be represented via such series. Some of these classes contain members that may be unbounded on the real axis. (Received September 15, 2014)