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Tomoki Nakanishi and **Salvatore Stella*** (stella.sa@husky.neu.edu), 360 Huntington ave,
567 Lake Hall, Boston, MA 02115. *Wonder of sine-Gordon Y-systems.*

The sine-Gordon Y-systems and the reduced sine-Gordon Y-systems were introduced by Tateo in the 90's in the study of the integrable deformation of conformal field theory by the thermodynamic Bethe ansatz method. The periodicity property and the dilogarithm identities concerning these Y-systems were conjectured by Tateo, and recently proved using cluster algebras. In this talk we explain how these Y-systems can be understood using triangulations of polygons and how this provide automatically a proof of both periodicity and dilogarithm identities in full generality. (Received February 16, 2013)