1067-14-634   **David J Swinarski*** (`davids@math.uga.edu`), Department of Mathematics, University of
            Georgia, Athens, GA 30602. *Vector bundles of conformal blocks.* Preliminary report.

The WZW model of conformal field theory gives rise to vector bundles on the moduli spaces of curves $\overline{\mathcal{M}}_{g,n}$. These were first constructed in the 1980s by Tsuchiya, Ueno, and Yamada and received a great deal of attention in the 1990s in connection with the Verlinde formula. Recently, Fakhruddin (2010) gave formulas for the Chern classes of these bundles. These have been implemented by Swinarski in a Macaulay 2 package called ConfBlocks. I will discuss experimental results, theorems, and new questions that have come out of this. This is joint work with Valery Alexeev and Angela Gibney. (Received September 12, 2010)