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Valerio De Angelis* (vdeangel@xula.edu), Mathematics Department, Xavier University of Louisiana, 1, Drexel Drive, New Orleans, LA 70125, and **Victor H Moll** and **Tewodros Amdeberhan**. *The 2-adic valuation of the complementary Bell numbers.*

The n -th Bell number $B(n)$ is the number of partitions of a set with n elements. The n -th complementary Bell number $B_1(n)$ is the difference between the number of such partitions with an even number of sets, and those with an odd number of sets. While the 2-adic valuation (or largest power of 2 factor) of $B(n)$ is easily calculated, the 2-adic valuation of $B_1(n)$ is harder to find. In this talk we present explicit values of the 2-adic valuation of $B_1(n)$ when $n \not\equiv 14 \pmod{24}$, and show how the 2-adic valuation of $B_1(24n + 14)$ is related to the binary expansion of n . As a consequence, we find that $B_1(n)$ is zero for at most one number $n > 2$. (Received September 21, 2010)