1135-46-2212 **Valeriano Aiello*** (valeriano.aiello@vanderbilt.edu), Vanderbilt University, 1326 Stevenson Center, Nashville, TN 37240. *The inner structure of the 2-adic ring C^*-algebra and its acquaintances.*

The 2-adic ring C^*-algebra is the universal C^*-algebra $\mathcal{Q}_2$ generated by an isometry s_2 and a unitary u such that $s_2u = u^2s_2$ and $s_2s_2 + us_2s_2u^* = 1$. Inside $\mathcal{Q}_2$, the isometries s_2 and us_2 generate a natural copy of the Cuntz algebra $\mathcal{O}_2$. This inclusion turns out to be rigid in the sense that endomorphisms of $\mathcal{Q}_2$ that restrict to the identity on $\mathcal{O}_2$ are actually the identity on the whole $\mathcal{Q}_2$. Inverting the perspective, I will also discuss the problem of extending Bogolubov automorphisms from $\mathcal{O}_2$ to $\mathcal{Q}_2$. In addition, I will present structure results on endomorphisms and automorphisms that fix the diagonal subalgebra of $\mathcal{Q}_2$ or the copy of $C^*(\mathbb{Z})$ generated by u. Time permitting, I will indicate how these results generalize to certain boundary quotients of right LCM semigroups. This talk is based on a joint work with Roberto Conti (Sapienza Università di Roma), Stefano Rossi (Università di Roma Tor Vergata), and Nicolai Stammeier (University of Oslo). (Received September 25, 2017)