1119-81-94 **Marcel Bischoff*** (marcel.bischoff@vanderbilt.edu), Vanderbilt University, Department of Mathematics, 1326 Stevenson Center, Nashville, TN 37203. *Conformal nets and unitary fusion categories.* Preliminary report.

Completely rational conformal nets axiomatize rational chiral conformal field theory using von Neumann algebras and the representation category $\mathrm{Rep}(\mathcal{A})$ of such a net $\mathcal{A}$ is a unitary modular tensor category by Kawahigashi, Longo and Müger. We discuss the structure and examples of conformal nets, where $\mathrm{Rep}(\mathcal{A})$ is braided equivalent to the Drinfeld center $Z(\mathcal{F})$ of a unitary fusion category $\mathcal{F}$. In this case, $\mathcal{F}$ physically arises from $\mathcal{A}$. Namely, $\mathcal{F}$ is contained in a certain 2-category associated with $\mathrm{Rep}(\mathcal{A})$ (Ocneanu's maximal atlas) "containing all fusion categories related to $\mathrm{Rep}(\mathcal{A})$", which classifies certain defects of full conformal nets on Minkowski space associated with $\mathcal{A}$. (Received February 09, 2016)