

Abstract Submitted  
for the OSF17 Meeting of  
The American Physical Society

**Algebraic and Functor Quantum Field Theory** PERRY RICE,  
DANIEL KING, Miami University — In 2009, Urs Schreiber published Algebraic  
Quantum Field Theory from n-functorial Quantum Field Theory, relating the Haag-  
Kastler axiomatization of Quantum Field Theory (corresponding to the Heisenberg  
perspective) on 2-dimensional Minkowski spacetime to that of Atiyah and Segal  
(Schrödinger). In this paper, we seek to provide a third perspective, corresponding  
to the Dirac interaction picture. In doing so, we assemble a list of tools from category  
theory which will allow us to axiomatize quantum field theories.

Perry Rice  
Miami University

Date submitted: 14 Sep 2017

Electronic form version 1.4