1135-46-59 Sheldon Axler* (axler@sfsu.edu), Mathematics Department, San Francisco State University, San Francisco, CA 94132. The Sarason Space $H^{\infty} + C$.

Let \mathbf{T} denote the unit circle in the complex plane; let L^{∞} denote the usual space of bounded measurable functions on \mathbf{T} with respect to arc length measure; let H^{∞} denote the subalgebra of L^{∞} consisting of those L^{∞} functions whose Fourier coefficients corresponding to the negative integers all vanish; and let C denote the set of continuous complex-valued functions on \mathbf{T} . The Sarason space $H^{\infty} + C$ is the linear span of H^{∞} and C. Surprisingly, $H^{\infty} + C$ is a closed subalgebra of L^{∞} . This expository talk will highlight the many remarkable appearances of $H^{\infty} + C$ in various aspects of operator theory and function theory. (Received July 14, 2017)