the forcing **P** actually used, combines a condition s from **S** with an analogue of the set x from the Solovay conditions.

Obviously Solovay's trick can be iterated to code subsets of $\aleph_n$ by subsets of ω for any fixed n in ω. It is less obvious that this trick can be iterated infinitely many times in order to code, for example, a subset A of $\aleph_\omega$ as a subset of ω. In order to do this we must add, for each n in ω, a subset b_n of $\aleph_n$ which codes not only $A \cap \aleph_{n+1}$ but also the new subset b_{n+1} of $\aleph_{n+1}$ which we are simultaneously adding to code the segment of A above $\aleph_{n+1}$. This apparent infinite regress is avoided by the simple idea of allowing conditions for adding b_n to code up only that part of b_{n+1} which has already been forced.

If all cardinals were regular then this would essentially finish the argument: an Easton style class extension could be used to code a class A of ordinals. Unfortunately the basic Solovay forcing breaks down at singular cardinals: if κ is singular then trying to code a subset of κ^+ by a subset of κ will simply collapse κ. The reason for this is that the Solovay trick to code a subset of κ adds its subset of κ via conditions with domain of size less than κ. If κ is regular this is enough to give the conditions the κ chain condition and hence keep κ from being collapsed; with κ singular this fails. Jensen solves this difficulty in the coding problem by a use of the fine structure of L, and it is this use of fine structure which accounts for almost all the difficulty of the proof.

Since adding a subset b_ω of $\aleph_\omega$ to code $A \cap \aleph_{\omega+1}$ would collapse $\aleph_\omega$, Jensen makes the sequence $\langle b_n: n \in \omega \rangle$ code this up at the same time as each b_n is individually coding up $A \cap \aleph_{n+1}$. This alone seems difficult enough, but it must be recalled that we do not only have $\aleph_\omega$ to deal with; we must deal with all singular cardinals at once. Thus in constructing the new subset b_κ of κ we must keep track in some coherent way of all the singular cardinals λ larger than κ such that b_κ might be helping to code subsets of λ^+. This sort of organization is precisely what Jensen's principal $\square$ was designed for, and it is this use of the fine structure of L which leads to the complications of the proof.

This book gives a detailed proof which is relatively readable to anyone with the necessary prerequisites. Needless to say, these prerequisites include a firm grounding in the basic theory of fine structure as well as familiarity with set theory in general. There are numerous misprints, mainly in the most technical parts of the exposition, but these should not be too much of a barrier to the qualified reader. The exposition could also be improved by more explanation of where the proof is and where it is going, but the real difficulty of reading this book comes simply and directly from the difficulty of the mathematics.

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Random Fourier series with applications to harmonic analysis, by Michael B. Marcus and Gilles Pisier, Annals of Mathematics Studies, No. 101, Princeton Univ. Press, Princeton, N.J., 1981, v + 150 pp., $17.50 (cloth), $7.00 (paperback).