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Sommario/riassunto	In these notes we construct an inner model with a Woodin cardinal, and develop fine structure theory for this model. Our model is of the form L [E], where E is a coherent sequence of extenders, and our work builds upon the existing theory of such models. In particular, we rely upon the fine structure theory of L[E] models with strong cardinals, which is due to Jensen, Solovay, Dodd-Jensen, and Mitchell, and upon the theory of iteration trees and "backgrounded" L[EJ models with Woodin cardinals, which is due to Martin and Steel. Our work is what results when fine structure meets iteration trees. One of our motivations was the desire to remove the severe limitations on the theory developed in [MS] caused by its use of an external comparison process. Because of this defect, the internal theory ofthe model L[E] constructed in [MS] is to a

large extent a mystery. For example it is open whether the L[EJ of [MS] satisfies GCH. Moreover, the use of an external comparison process blocks the natural generalization to models with infinitely many Woodin cardinals of even the result [MS] does prove about L[E], that L[E] F= CH + ~ has a definable wellordering. Our strategy for making the comparison process internal is due to Mitchell and actually predates [MS]. The strategy includes taking finely calibrated partial ultrapowers ("dropping to a mouse") at certain stages in the comparison process.