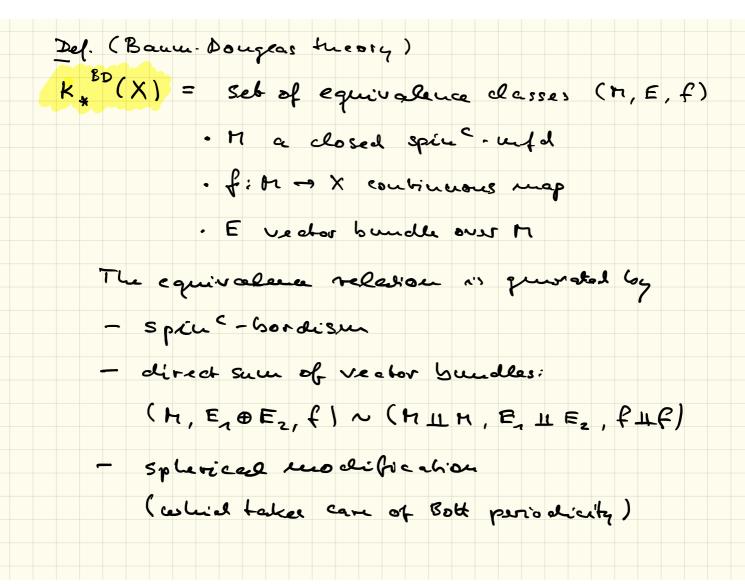


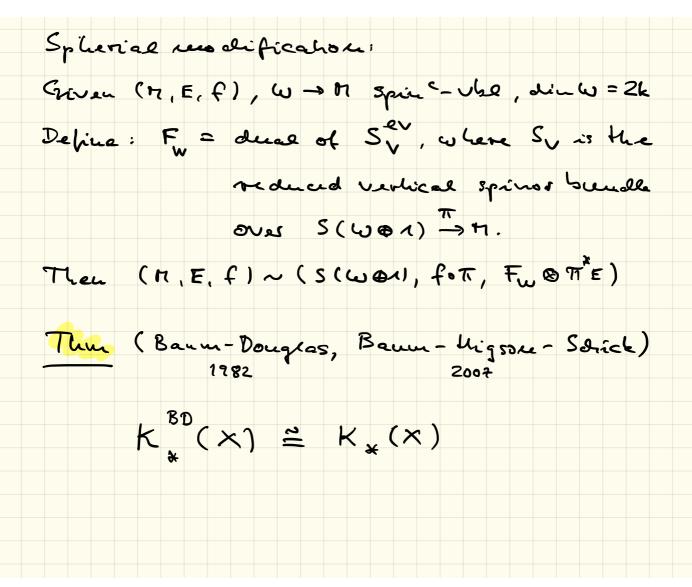
§1 Geometry & K-hoursey, untwisted

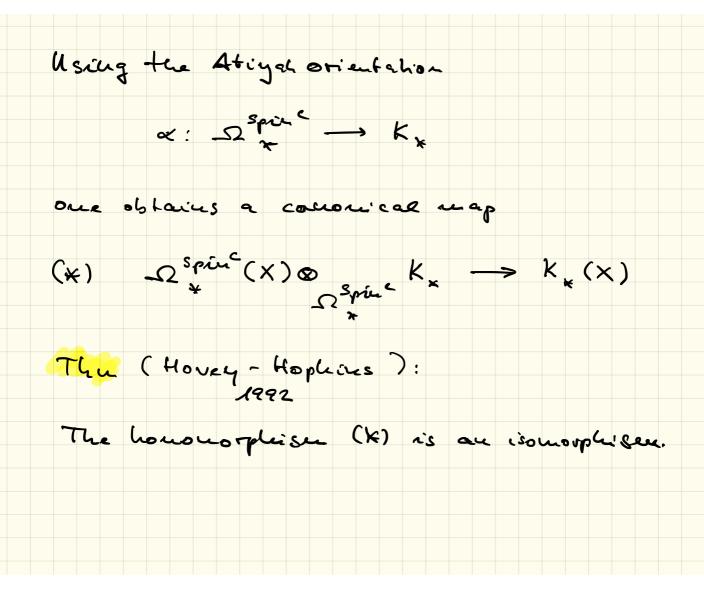
K(X), geometrically defined via vectorbundle our spece X. generalized cohomology theory Nij K"(X) = [X, K, ], (K, ) spectrum generalized homology theory (مہ Ku(X) = colin I Skin, X + ~ 1Kk]

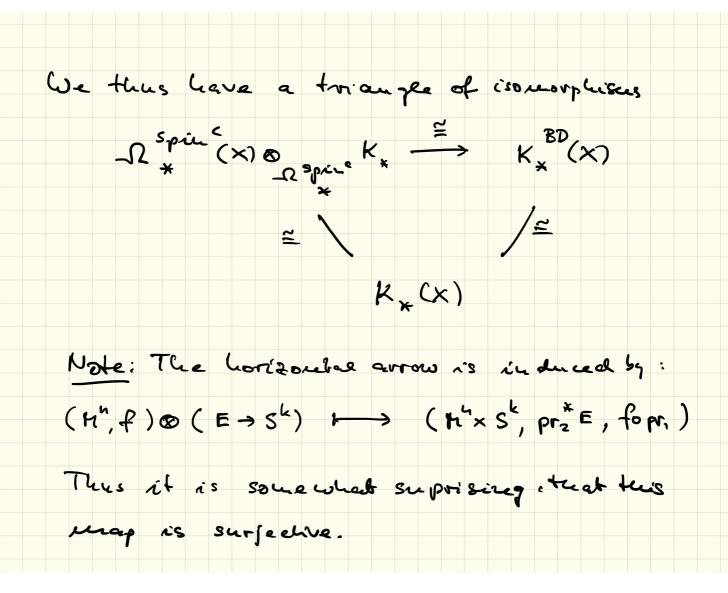
Poincare dealing for k-dueory M closed, spin<sup>c</sup> → [MJ<sub>k</sub> ∈ K<sub>u</sub>(M) K<sup>\*</sup>(M) =→ K<sub>u-\*</sub>(M) × → [MJ<sub>k</sub> ∩X M, din & = 2k, by Bott perodicity K<sub>0</sub>(M) → Moree (K<sup>0</sup>(M), Z) [M] → (E vile → rind (D<sub>h</sub> OE)) Atigah's idea : Ko (n) = Set of equivalence elasses of some sort of operators like & no Def'n of Ell(X) via C(X) - modules no Def'n of KK-theory by Kaspavov. those geometric definitions: - Baun-Douglas theory  $K_{x}^{BD}(X)$ - Baun-Douglas theory  $K_{x}^{BD}(X)$ - Solf' definition via a quotient of spinbordism by suitable bordish dama of human

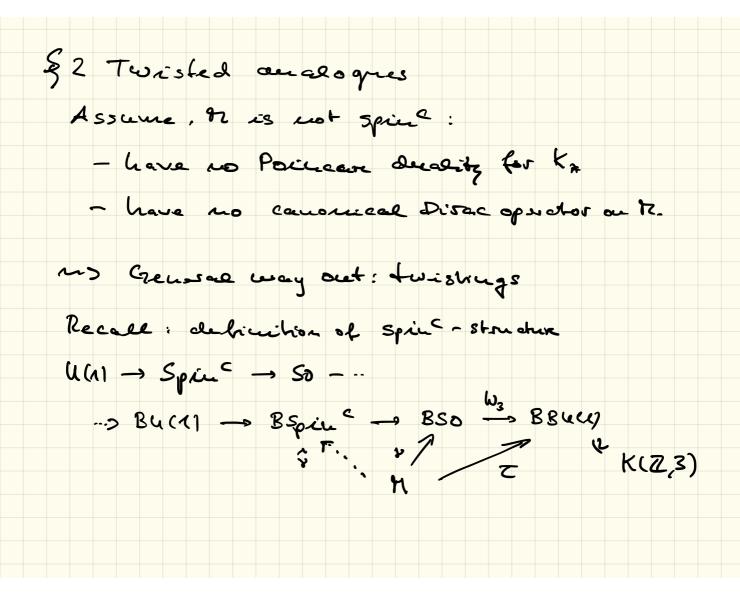
(only carried out for KO-theory, so for)

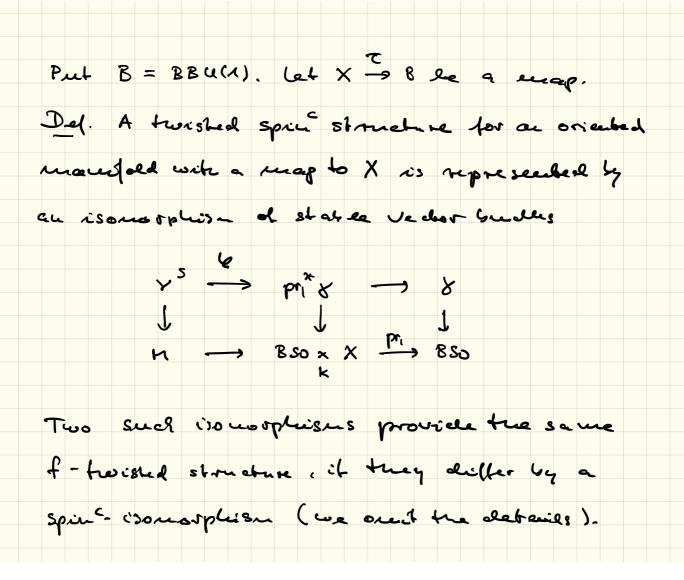


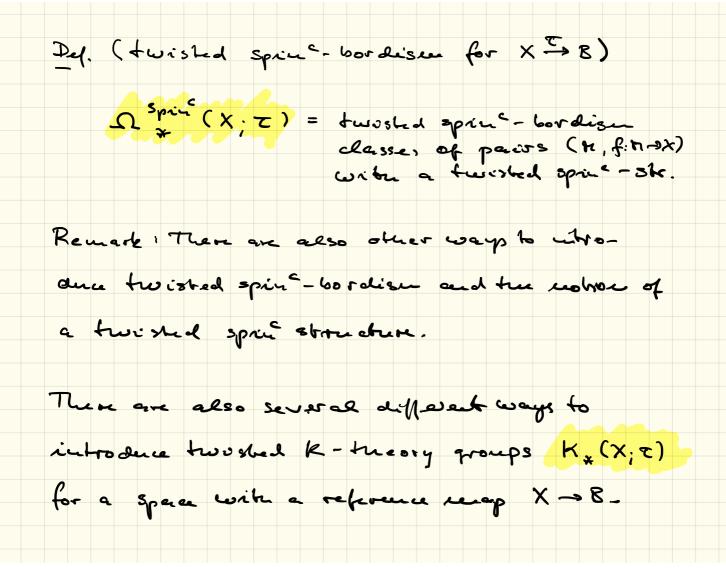


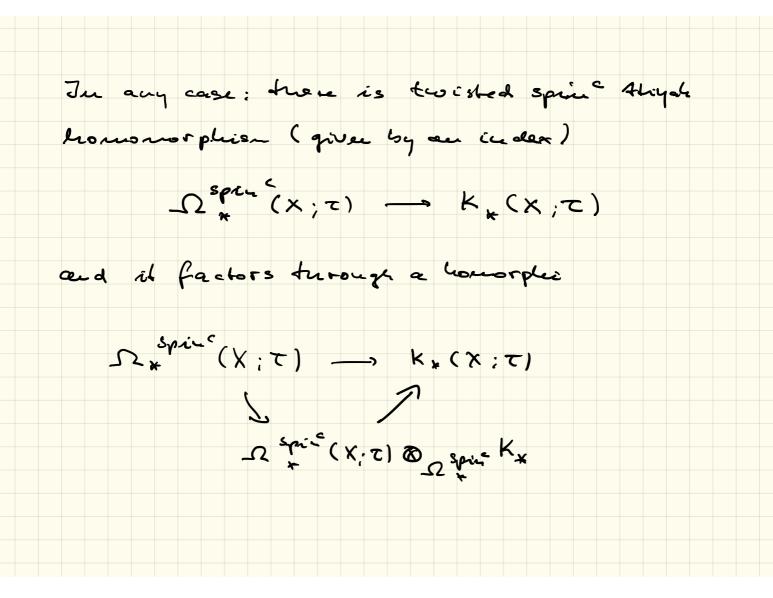


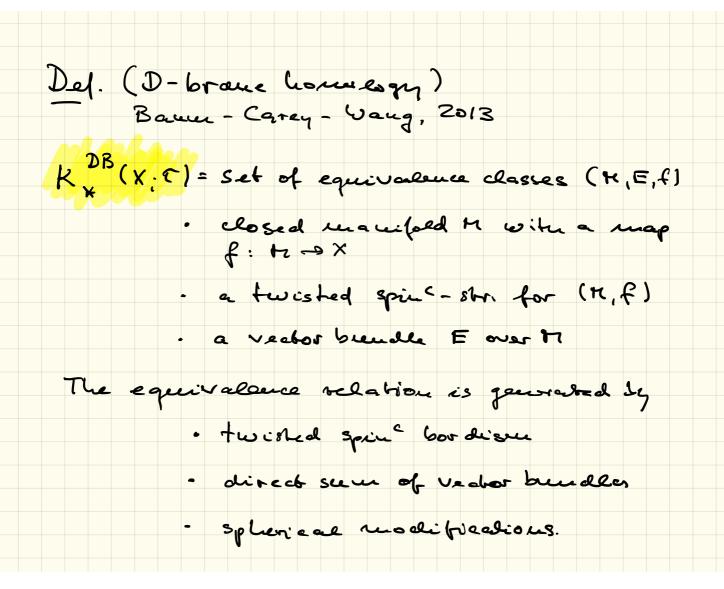


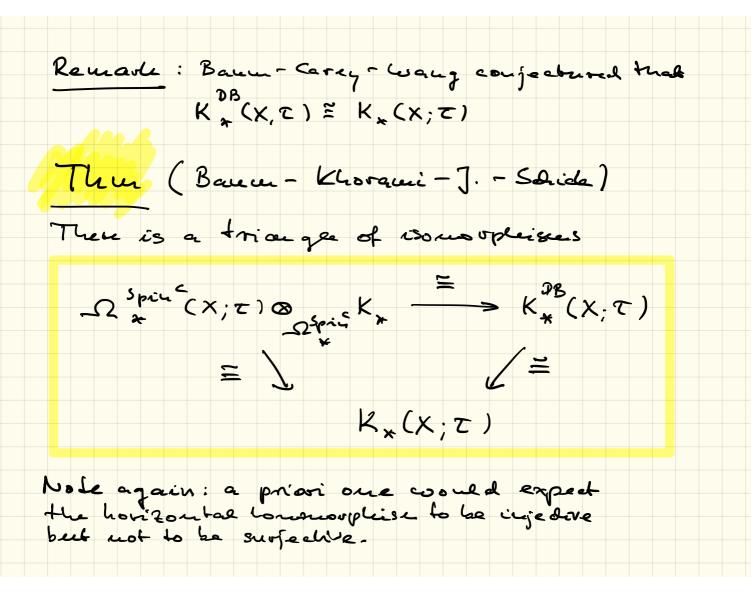




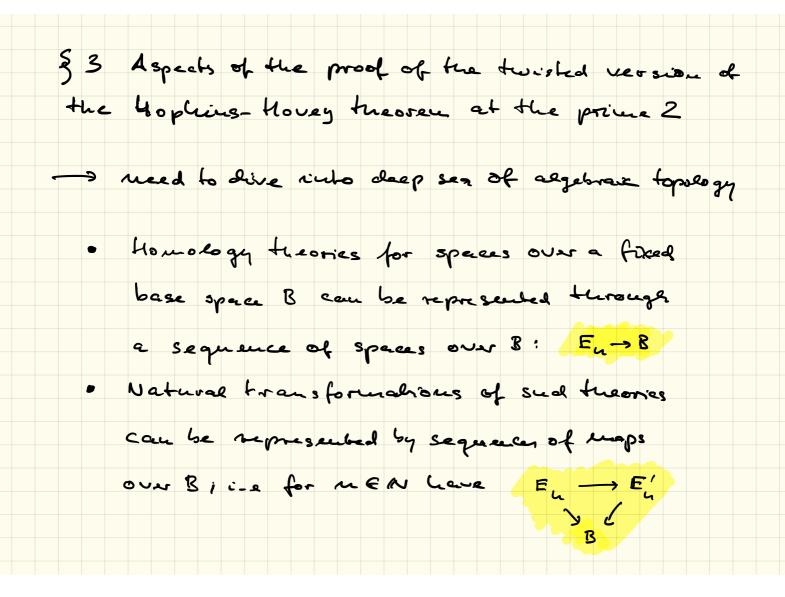


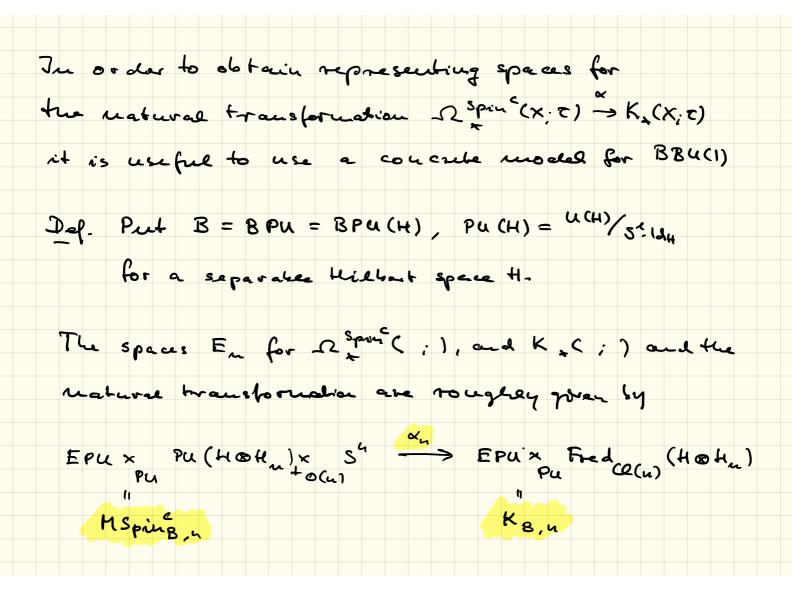


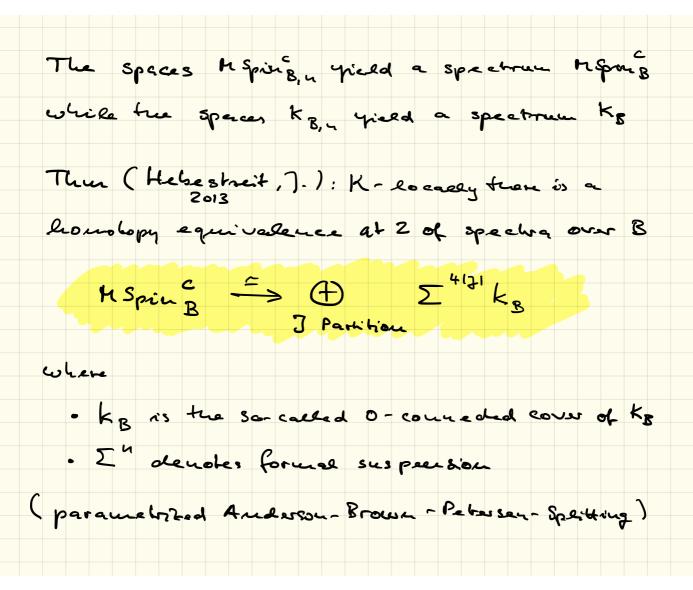




Remark on proof: • In the theorem one compares three gener radized homology theorems, which are defined on the calegoogy of spaces own a fixed space, namely B = BBU(1). • We prove the theorem, using techniques from algebraic topology. In particular this allows to prove the statements localized at the individual primes in order to get the cubegral statement.







Remark: One can see from the parametrized Andron Brown- Peterson specticing that a copy of (connected) parametrized k-theory spects off, but this yields just an additive result.

Hopkins and hovey used the unparameterial version of the Anderson-Brown-Reperson splitting to construct at 2 a sort of Mappin resolution of K-theory to prove the Hopkins-Hovey theorem in the unparameterized setting. Their argument is of algebraic mature and can be carried own.

