(X, B)
$f :$
$Y \to$
X
$K_Y + C = f^*(K_X + B),$

E
$a(E; X, B)$

$a(E; X, B) = -mult_E C.$

(X, B)

$discrep(X, B) := \inf\{a(E; X, B) : E is an exceptional divisor over X\}$

$totdiscrep(X, B) := inf\{a(E; X, B) : E is a divisor over X\}.$

$\pi :$
$X \to$
U
(X, B)
Q
$K_X +$
B
R
B
π
$C 0$
$RK_X +$
$B +$
C
π
U
C
$(K_X +$
$B)$
$\pi :$
$X \to$
U
(X, B)
Q
$K_X +$
B
R
$K_X +$
B
π
U
$(K_X +$
$B) g :$
$Y \to$
Z
(X, B)
C
$a(E; X, B) 0$
E
$f :$
$Z \to$
X
Q
B_Z
(Z, B_Z)
E
f
$E \in$
C
$E \in$
$C mult_E B_Z =$
$-a(E; X, B)$
$f_* B_Z =$
B
$K_Z +$
$B_Z =$
$f^*(K_X +$
$B)$
C
$a(E; X, B) 0$
E
Z
X
C
$a(E; X, B) 0$
$f :$
$Z \to$
X
di-
vi-
so-
rial
ex-
trac-
tion
$\{(X_i, B_i)\}$
(W, B_W)
$(K_W +$
$B_W)$