## PV Regev Encrypt

## Leaky Estimator, light version (DBDD\_predict), general (non-smooth) case for modular hints with k=q

PV Regev Encrypt
d
t=d/3
D-t
D_s = D_e
q (prime, q=1%2n)
Key Recovery Attack (bikz)
bits of quantum security (*0,265)
Randomness Recovery Attack (bikz)
bits of quantum security (*0,265)
Plaintext Recovery Using Hints Attack (bikz)
bits of quantum security (*0,265)
min of atatcks

683
{-1: 0.33, 0: 0.34, 1: 0.33}
12289
171,86
45
476,45
126
433,18
114
45
1024
E10

d	256	512	1024	2048
t=d/2	128	256	512	1024
D-t	128	256	512	1024
D_s = D_e	{-1: 0.33, 0: 0.34, 1: 0.33}	{-1: 0.33, 0: 0.34, 1: 0.33}	{-1: 0.33, 0: 0.34, 1: 0.33}	{-1: 0.33, 0: 0.34, 1: 0.33}
q (prime, q=1%2d)	7681	12289	12289	12289
Key Recovery Attack (bikz)	15,76	110,99	299,64	711,06
bits of quantum security (*0,265)	4	29	79	188
Randomness Recovery Attack (bikz)	16,94	111,1	299,64	711,06
bits of quantum security (*0,265)	4	29	79	188
Plaintext Recovery Using Hints Attack (bikz)	15,76	110,99	299,64	711,06
bits of quantum security (*0,265)	4	29	79	188
min of atatcks	4	29	79	188

d	1024
t=2d/3	682
D-t	342
D_s = D_e	{-1: 0.33, 0: 0.34, 1: 0.33}
q (prime, q=1%2d)	12289
Key Recovery Attack (bikz)	432,39
bits of quantum security (*0,265)	114
Randomness Recovery Attack (bikz)	172,59
bits of quantum security (*0,265)	45
Plaintext Recovery Using Hints Attack (bikz)	172,59
bits of quantum security (*0,265)	45
min of atatcks	45