

struc-
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 dat
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 ?
 N
 $\log N +$
 $o(\log N)$
 n
 $n +$
 $o(n)$
 $N =$
 2^n
 ?
 ?
 ?
 bitvec-
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 bitvec-
 tor
 B
 $B[i] \in \{0, 1\}, \forall i 0 \leq i < n$

$$(1) \quad B[i] \in \{0, 1\}, \forall i 0 \leq i < n$$

$$(2) \quad B[i] \in \{\perp, \top\}, \forall i 0 \leq i < n$$

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 (*SDSL*)

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 $\sigma =$
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Variante	Spazio occupato
<i>Plain bitvector</i>	$64 \lceil \frac{n}{64} + 1 \rceil$
<i>Interleaved bitvector</i>	$\approx n \left(1 + \frac{64}{K}\right)$
H_0 -compressed bitvector	$\approx \lceil \log nm \rceil$
<i>Sparse bitvector</i>	$\approx m \left(2 + \log \frac{n}{m}\right)$

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$$(3) \quad B(i) = \sum_{k=0}^{k < i} B[k], \forall i 0 \leq i < n$$

$o(n)$
 $\mathcal{O}(1)$
 ??
 $\sigma =$
 $\sigma =$
 m
 k
 rank
 sample

Variante	Bit aggiuntivi	Complessità temporale
<i>Plain bitvector</i>	$0.0625 \cdot n$	$\mathcal{O}(1)$
<i>Interleaved bitvector</i>	128	$\mathcal{O}(1)$
H_0 -compressed bitvector	80	$\mathcal{O}(k)$
<i>Sparse bitvector</i>	64	$\mathcal{O}(\log \frac{n}{m})$

$\sigma =$
 B
 n
 i
 B
 $B(i) = \min\{j < n \mid rank_B(j+1) = 1\}, \forall i 0 < i \leq rank_B(n)$

$$(4) \quad \text{??}$$

n

Variante	Bit aggiuntivi	Complessità temporale
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