

?  
 strut-  
 ture  
 dati  
 suc-  
 cinte  
 $N$   
 $\log N +$   
 $o(\log N)$   
 $n$   
 $n +$   
 $o(n)$   
 $N =$   
 $2^n$   
 ?

strut-  
 ture  
 dati  
 suc-  
 cinte  
 bitvec-  
 tor  
 bitvec-  
 tor  
 $B$   
 $n$   
 $B[i] = \{0, 1\}, \forall i 0 \leq i < n$

$B[i] = \{\perp, \top\}, \forall i 0 \leq i < n$

bitvec-  
 tor  
 fun-  
 dom  
 access  
 Succ-  
 cinct  
 Data  
 Struc-  
 ture  
 Li-  
 brary  
 (SDSL)

?  
 ??  
 bitvec-  
 tor  
 fun-  
 zione  
 rank  
 fun-  
 zione  
 se-  
 lect  
 $o(n)$   
 SDSL  
 bitvec-  
 tor  
 $\perp$   
 $m$   
 $K$

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

fun-  
 zione  
 rank  
 rango  
 $B$   
 $n$   
 bitvec-  
 tor

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

$o(n)$   
 $\mathcal{O}(1)$   
 fun-  
 zione  
 rank  
 bitvec-  
 tor  
 SDSL  
 ??  
 fun-  
 zione  
 rank  
 bit-  
 vec-  
 tor  
 $n$   
 $m$   
 $k =$   
 1

Variante	Bit aggiuntivi	Complessità temporale
Plain bitvector	$0.0625 \cdot n$	$\mathcal{O}(1)$
Interleaved bitvector	128	$\mathcal{O}(1)$
$H_0$ -compressed bitvector	80	$\mathcal{O}(1)$