

**form**

**co-time  
component**

**co-space  
component**

*charge-current  
3-form (odd)*

current density  $\mathbf{J}$   
**vector**  $\rightsquigarrow$  2-form

charge density  $\rho$   
**scalar**  $\rightsquigarrow$  3-form

*charge-current pot.  
2-form (odd)*

magnetic field i.  $\mathbf{H}$   
**pseudocov.**  $\rightsquigarrow$  1-form

electric flux d.  $\mathbf{D}$   
**vector**  $\rightsquigarrow$  2-form

*electromagnetic  
2-form (even)*

electric field i.  $\mathbf{E}$   
**covector**  $\rightsquigarrow$  1-form

magnetic flux d.  $\mathbf{B}$   
**pseudovec.**  $\rightsquigarrow$  2-form

*e.-m. potential  
1-form (even)*

scalar potential  $V$   
**scalar**  $\rightsquigarrow$  0-form

vector potential  $\mathbf{A}$   
**covector**  $\rightsquigarrow$  1-form