

XXV International Baldin Seminar on High Energy Physics Problems  
"Relativistic Nuclear Physics and Quantum Chromodynamics"



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on High Energy Physics Problems  
*Relativistic Nuclear Physics & Quantum Chromodynamics*  
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## Parton distribution functions in QED

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QED structure and fragmentation functions are systematically derived within the next-to-leading order approximation. DGLAP evolution equations are solved by iterations. Perturbative results are shown for electron parton distribution functions up to  $O(\alpha^3 L^2)$ , where  $L = \ln(\mu^2/m^2)$  is the large logarithm and  $\mu$  is the factorization energy scale. The results are relevant for the present and future experiments at electron-positron colliders.

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