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Soft particles from the edge of space-time

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Symmetries are fundamental to our understanding of quantum field theory and the discovery of new symmetries often leads to surprising new insights. It is even more surprising when these symmetries turn out to be infinite-dimensional! Recently, such discoveries have been made in Maxwell theory, Yang-Mills theory, Einstein's gravity, $N=1$ $D=4$ SQED and $N=1$ $D=4$ SUGRA. In the S-matrix these symmetries manifest themselves as Ward identities which turn out to be soft limits. They are also intimately connected with potentially measurable "memory effects" in some (and probably all) of these theories. I will give an overview of this fascinating new development.