Long term ozone trend analysis for the years 1978 – 2011 from merged data sets of various satellites.

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The study presents the merged total ozone data sets from GOME, SCIAMACHY and GOME-2 satellites spanning the years 1995-2001. The merged data together with the TOMS/SBUV merged total ozone data sets (1978 – 2011) are used to study long term trends by applying statistical analysis using various explanatory variables that represent the physical and chemical processes which modify the global ozone distributions. The regression analysis applied quantifies the contribution of each process. The aim of the study is to identify the fingerprint of the onset of ozone recovery.