



Meridional transports in the Atlantic Ocean at 7.5N and 24.5N in 1992-1993 and 2010-2011

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An inverse model has been applied to two oceanographic cruises carried out in 2010 and 2011 at 7.5N and 24.5N, respectively. Results have been compared to a reanalysis of these same sections conducted in 1992 and 1993, in the frame of the WOCE program. The inverse model encompasses 17 equations and 196/226 unknowns for 1992/2011, corresponding to the velocities in the reference layer. Different constraints have been considered: transport of Antarctic Bottom Water and Deep Western Boundary Current at 7N, transport of the Florida Current, and transport of the Antilles Current and Deep Western Boundary Current at 24N. The analysis shows stronger thermocline and Antarctic Bottom Water transports during 1992-1993 than during 2010-2011.