

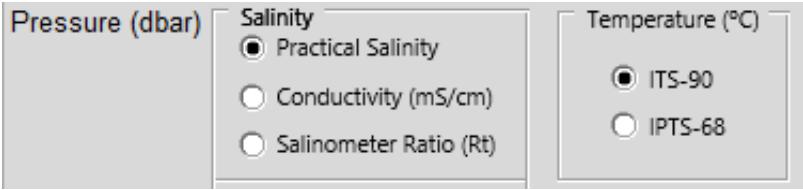
Ocean Sci. Discuss., author comment AC6
<https://doi.org/10.5194/os-2022-2-AC6>, 2022
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Comment on os-2022-2

Carlos Gil Martins and Jaimie Cross

Author comment on "Technical note: TEOS-10 Excel – implementation of the Thermodynamic Equation Of Seawater – 2010 in Excel" by Carlos Gil Martins and Jaimie Cross, Ocean Sci. Discuss., <https://doi.org/10.5194/os-2022-2-AC6>, 2022

We have updated the software to **version 2.1** which now includes calculation of Practical Salinity from the conductivity ratio measured by a laboratory salinometer (R_t). The salinity input radio buttons were modified accordingly (figure below).



The image shows a software interface with three main sections: Pressure (dbar), Salinity, and Temperature (°C). The Pressure section is on the left and is currently empty. The Salinity section is in the middle and contains three radio buttons: 'Practical Salinity' (which is selected), 'Conductivity (mS/cm)', and 'Salinometer Ratio (R_t)'. The Temperature section is on the right and contains two radio buttons: 'ITS-90' (which is selected) and 'IPTS-68'.

The conductivity ratio function added in v.2.0 { $SP_from_R(R, t, p)$ } calculates Practical Salinity from the conductivity ratio (R), of a sample at temperature (t), and pressure (p) relative to SSW at $t=15$ °C and $p=0$, which is not the conductivity ratio measured by a laboratory salinometer, where both the sample and the reference SSW are at the same temperature. **The function for computing Practical Salinity from the salinometer ratio (R_t) has been now added** { $SP_salinometer(R_t, t)$ }, where ' t ' is the temperature of the salinometer thermostable bath.

The attached file includes the necessary manuscript amendments to reflect the above updates, including updates of table 1 and figs. 1 and 2.

Please also note the supplement to this comment:

<https://os.copernicus.org/preprints/os-2022-2/os-2022-2-AC6-supplement.pdf>