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Erratum: Solution to the many-body problem in one point (*New J. Phys.* **16** 113025)

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Keywords: many-body Green's function, Kadanoff–Baym equation, GW, GW + cumulant, one-point model

Due to a typesetting error, the following figures were not reproduced correctly. In addition, in the caption of figure 3, u_{lin}^0/V should read u_{lin}^0/v



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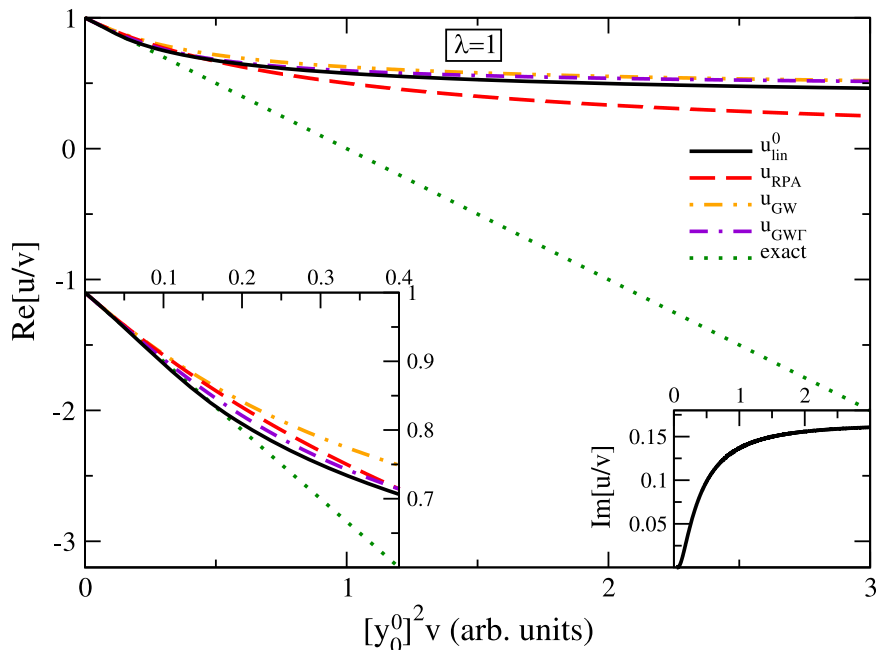


Figure 3. The real part of the screened interaction in one point u/v as a function of the interaction $[y_0^0]^2 v$ ($\lambda = 1$). Continuous line (black): u_{lin}^0/v ; dashed line (red): u_{RPA}/v ; double-dot-dashed line (orange): u_{GW}/v ; dot-double-dashed line (violet): $u_{GW\Gamma}/v$; dotted line (green): exact solution. Inset (bottom-left corner): zoom for small $[y_0^0]^2 v$. Inset (bottom-right corner): the imaginary part of u/v .

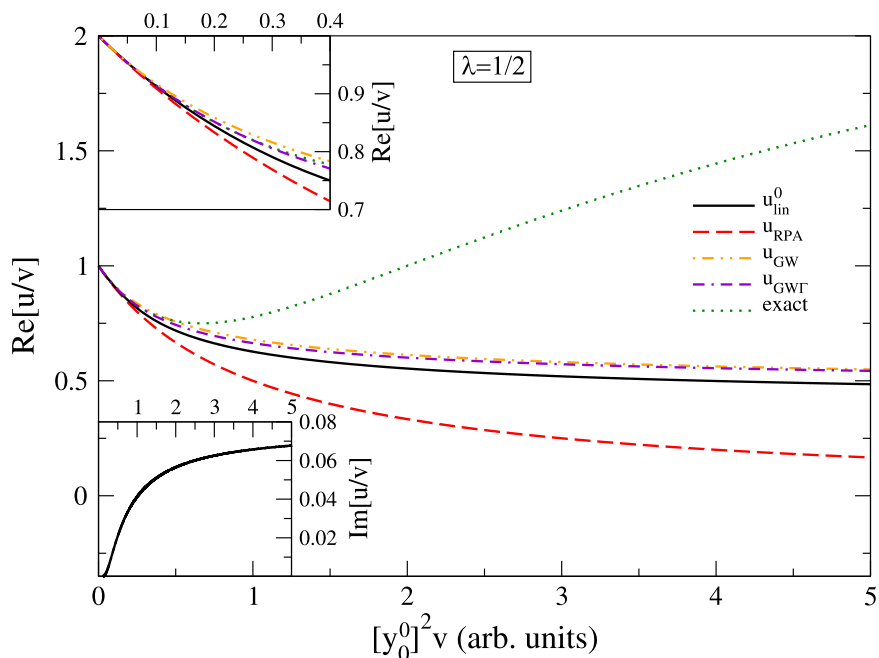


Figure 4. The real part of the screened interaction in one point u/v as a function of the interaction $[y_0^0]^2 v$ ($\lambda = \frac{1}{2}$). Continuous line (black): u_{lin}^0/y_0^0 ; dashed line (red): u_{RPA}/v ; double-dot-dashed line (orange): u_{GW}/v ; dot-double-dashed line (violet): $u_{GW\Gamma}/v$; dotted line (green): exact solution. Inset (top-left corner): zoom for small $[y_0^0]^2 v$. Inset (bottom-left corner): the imaginary part of u/v .

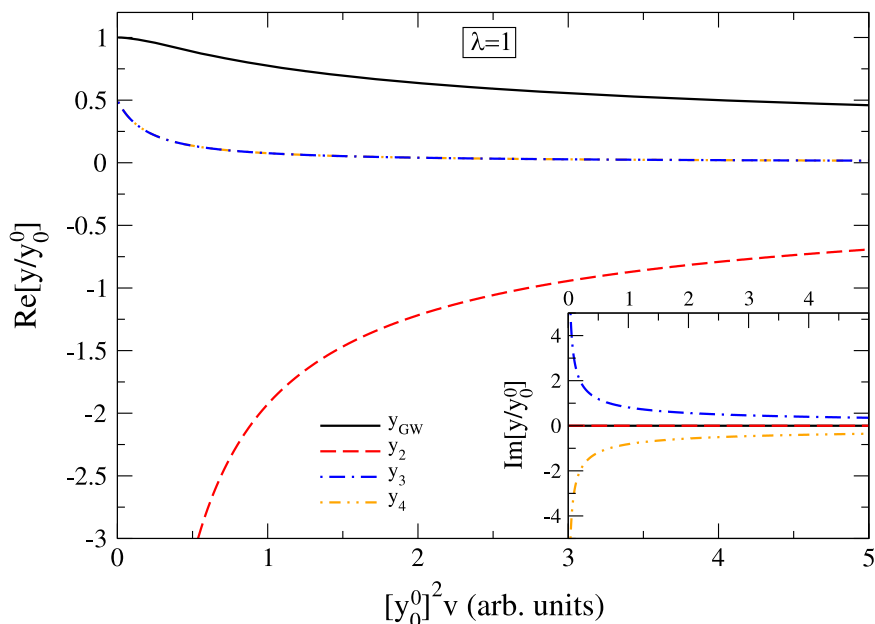


Figure 5. The real part of the GW Green’s function in one point as a function of the interaction $[y_0^0]^2 v$ ($\lambda = 1$). Continuous line (black): the physical solution y_{GW}/y_0^0 ; dashed line (red): the non-physical GW solution y_2/y_0^0 ; dot-dashed line (blue): the non-physical GW solution y_3/y_0^0 ; double-dot-dashed line (orange): the non-physical GW solution y_4/y_0^0 . Inset: the imaginary part of the GW Green’s function.

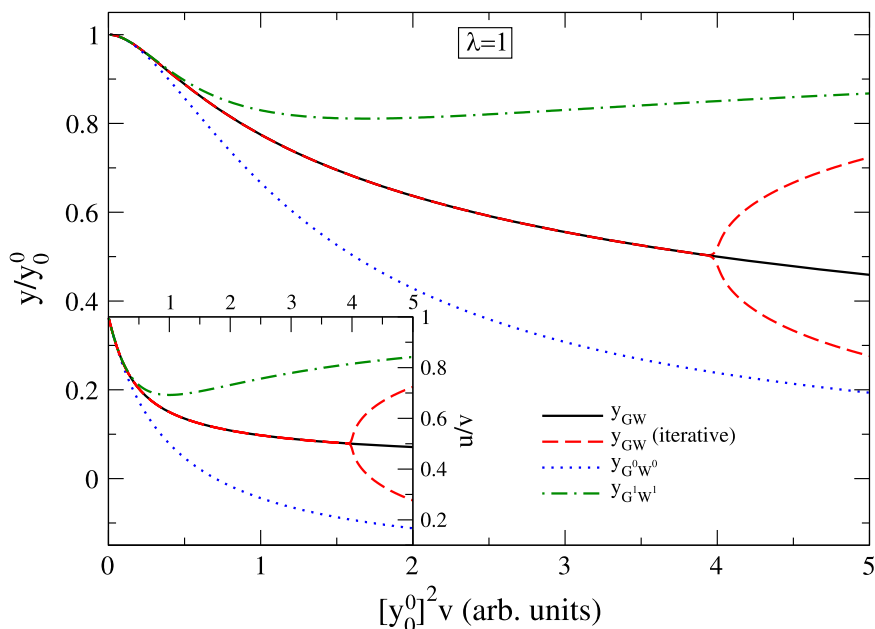


Figure 6. The GW Green’s function in one point as a function of the interaction $[y_0^0]^2 v$ ($\lambda = 1$). Continuous line (black): the physical solution y_{GW}/y_0^0 ; dashed line (red): the iterative GW result (see main text for details); dotted line (blue): $y_{G^0 W^0}/y_0^0$; dot-dashed line (green): $y_{G^1 W^1}/y_0^0$. Inset: the screened interaction u_{GW}/v as a function of the interaction $[y_0^0]^2 v$.

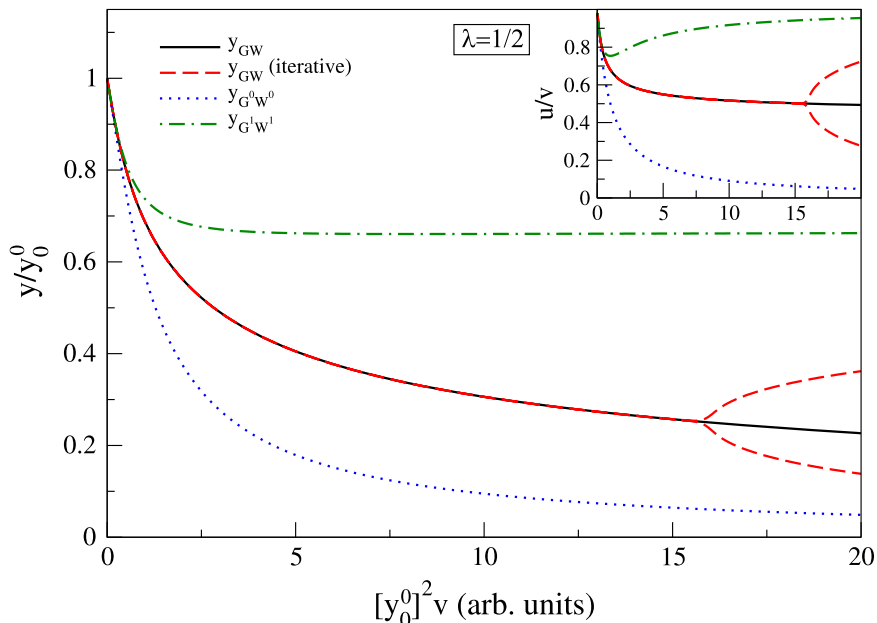


Figure 7. The *GW* Green's function in one point as a function of the interaction $[y_0^0]^2 v$ ($\lambda = \frac{1}{2}$). Continuous line (black): the physical solution y_{GW}/y_0^0 ; dashed line (red): the iterative *GW* result (see main text for details); dotted line (blue): $y_{G^0 w^0}/y_0^0$; dot-dashed line (green): $y_{G^1 w^1}/y_0^0$. Inset: the screened interaction u_{GW}/v as a function of the interaction $[y_0^0]^2 v$.

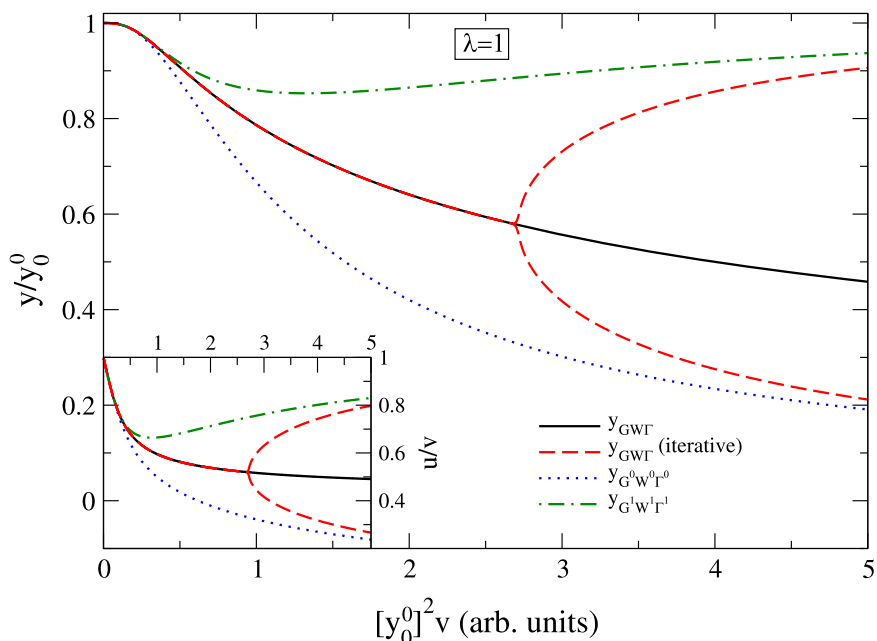


Figure 8. The *GW* Green's function in one point as a function of the interaction $[y_0^0]^2 v$ ($\lambda = 1$). Continuous line (black): the physical solution $y_{GW\Gamma}/y_0^0$; dashed line (red): the iterative *GW* result (see main text for details); dotted line (blue): $y_{G^0 w^0 \Gamma^0}/y_0^0$; dot-dashed line (green): $y_{G^1 w^1 \Gamma^1}/y_0^0$. Inset: the screened interaction $u_{GW\Gamma}/v$ as a function of the interaction $[y_0^0]^2 v$.