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Oscillation mode linewidths and heights of 23 main-sequence stars observed by *Kepler* *(Corrigendum)*

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In Appourchaux et al. (2014), the correct Eq. (1) should have been written with a minus sign in front of the second bracket as

$$\ln(\Gamma) = (\alpha \ln(\nu/\nu_{\rm max}) + \ln \Gamma_\alpha) - \left(\frac{\ln \Delta\Gamma_{\rm dip}}{1 + \left(\frac{2\ln(\nu/\nu_{\rm dip})}{\ln(W_{\rm dip}/\nu_{\rm max})} \right)^2} \right), \quad (1)$$

where ν is the mode frequency, $\nu_{\rm max}$ is the frequency of maximum mode height, α is the power law index, Γ_α is the factor of the power law, $\Delta\Gamma_{\rm dip}$ is the depth of the dip, $W_{\rm dip}$ is the width of the dip and $\nu_{\rm dip}$ is the frequency of the dip. The fits in Appourchaux et al. (2014) were indeed performed with the minus sign.

Another error was also found in the original Table 3 of Appourchaux et al. (2014) pretending to give the parameters of Eq. (1). As a matter of fact, in that Table 3, the parameter $W_{\rm dip}$ as reported is related to the full width at half maximum (FWHM) calculated in frequency space, and in addition wrongly computed as it should have been about 1.5 times larger. Using Eq. (1) given above, we can deduce the proper relation between $\mathrm{FWHM}_{\rm dip}$ and $W_{\rm dip}$ as

$$FWHM_{\rm dip} = \nu_{\rm dip} \left| \sqrt{\frac{W_{\rm dip}}{\nu_{\rm max}}} - \sqrt{\frac{\nu_{\rm max}}{W_{\rm dip}}} \right|. \quad (2)$$

In Table 1, we give the parameters that were not affected by the mistake supplemented by the value of $\nu_{\rm dip}$ which was not given in Appourchaux et al. (2014). In Table 2, we give the parameter $W_{\rm dip}$ that was not properly given in the Table 3 of Appourchaux et al. (2014), together with the corrected $\mathrm{FWHM}_{\rm dip}$, a value which was not correct in Table 3 of Appourchaux et al. (2014) and was wrongly named. We also note that from the expression of Eq. (1), there are two solutions for $W_{\rm dip}$ since we have

$$\ln(W^a_{\rm dip}/\nu_{\rm max}) = -\ln(W^b_{\rm dip}/\nu_{\rm max}) \quad (3)$$

where $W^a_{\rm dip}$ is the solution greater than $\nu_{\rm max}$, while $W^b_{\rm dip}$ is the solution smaller than $\nu_{\rm max}$. Here the solution chosen for $W_{\rm dip}$ is the former solution.

These corrections do not affect the conclusions reached for the dependence of these parameters upon the effective temperature and $\nu_{\rm max}$.

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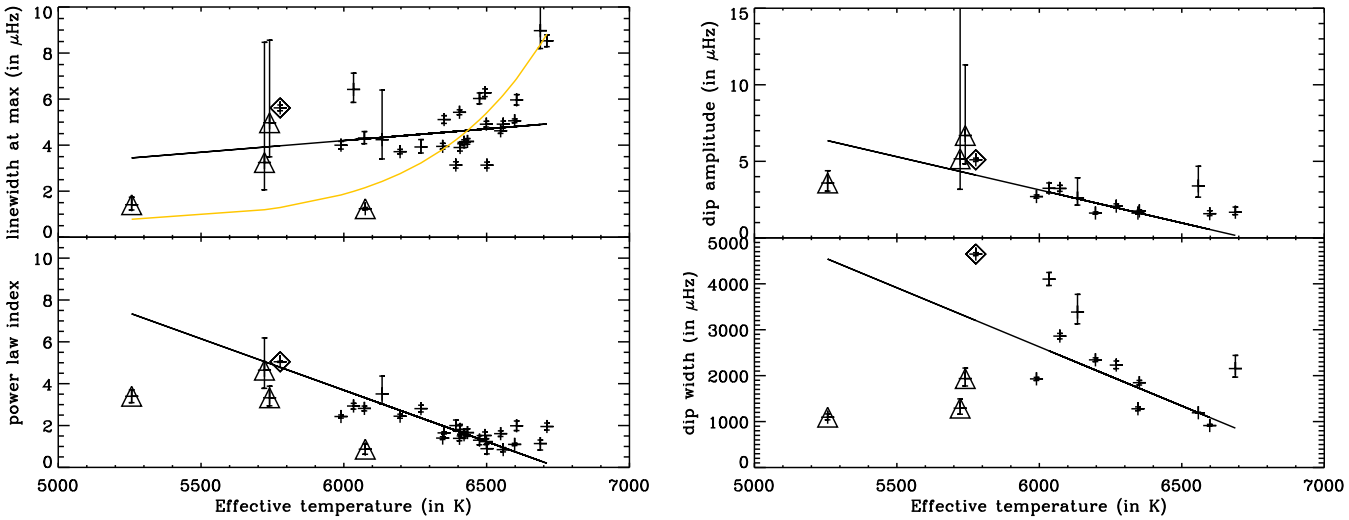

Fig. 6. Parameters of Eq. (1) as a function of the effective temperature for all 28 stars, for the power law dependence (*left*) and for the Lorentzian fit (*right*). The median value together with the credible intervals at 33% and 66% were derived from a Monte-Carlo simulation of the fit. The orange line shows the temperature dependence of the linewidth at the frequency of maximum mode height as derived by Appourchaux et al. (2012). The open diamond is the result of the fit for the solar data of the LOI. The open triangles are the results of the fit for the sub-giant stars of Benomar et al. (2013). The solid lines show a linear fit of the parameters with respect to the effective temperature. The Lorentzian parameters for stars for which the Lorentzian fit is not significant are not plotted.

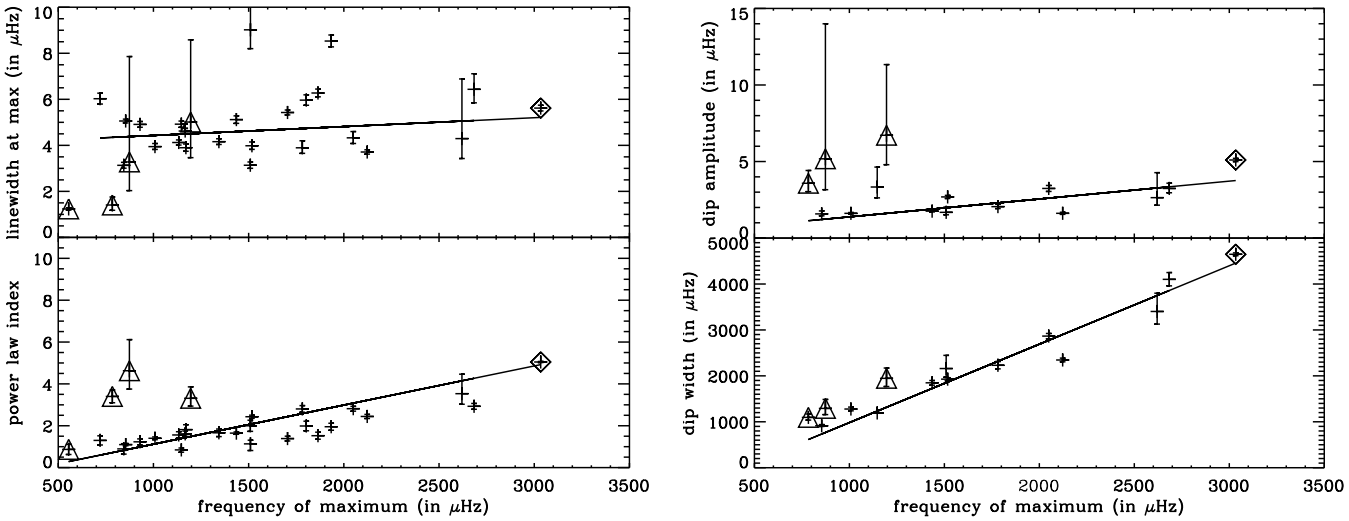

Fig. 7. Parameters of Eq. (1) as a function of the frequency of maximum mode height for all 28 stars, for the power law dependence (*left*) and for the Lorentzian fit (*right*). The median value together with the credible intervals of 33% and 66% were derived from a Monte-Carlo simulation of the fit. The open diamond is the result of the fit for the solar LOI data. The open triangles are the result of the fit for the sub-giant stars of Benomar et al. (2013). The error bars are derived from a Monte-Carlo simulation using credible intervals of 33% and 66%. The solid lines show a linear fit of the parameters with respect to the frequency. The Lorentzian parameters for stars for which the Lorentzian fit is not significant are not plotted.

Table 1. Linewidth parameters as per Eq. (1).

KIC	α	Uncertainty	Γ_α (in μHz)	Uncertainty (in μHz)	$\nu_{\rm dip}$ (in μHz)	Uncertainty (in μHz)	$\Delta\Gamma_{\rm dip}$ (in μHz)	Uncertainty (in μHz)
1435467	1.66	+0.18/–0.18	4.16	+0.12/–0.12	–	–	–	–
2837475	1.13	+0.17/–0.31	9.01	+1.63/–0.80	1509	+32./–44.	1.68	+0.36/–0.16
3424541	1.30	+0.21/–0.21	6.03	+0.23/–0.23	–	–	–	–
3733735	1.95	+0.16/–0.16	8.53	+0.26/–0.25	–	–	–	–
6116048	2.82	+0.11/–0.11	4.32	+0.28/–0.24	2049.	+11./–11.	3.23	+0.20/–0.19
6508366	1.23	+0.13/–0.13	4.91	+0.12/–0.12	–	–	–	–
6679371	1.10	+0.05/–0.05	5.06	+0.09/–0.09	854.	10./–5.	1.57	+0.19/–0.12
7103006	1.56	+0.15/–0.15	4.12	+0.11/–0.11	–	–	–	–
7206837	2.00	+0.26/–0.26	3.14	+0.14/–0.13	–	–	–	–
8379927	2.93	+0.13/–0.14	6.45	+0.69/–0.58	2683.	+18./–19.	3.25	+0.35/–0.29
8694723	1.65	+0.05/–0.05	5.11	+0.16/–0.15	1435.	+7./–7.	1.76	+0.05/–0.05
9139151	3.53	+0.87/–0.51	4.31	+2.42/–0.89	2620.	+57./–37.	2.64	+1.53/–0.49
9139163	1.39	+0.11/–0.11	5.43	+0.10/–0.10	–	–	–	–
9206432	1.52	+0.16/–0.16	6.28	+0.17/–0.16	–	–	–	–
9812850	1.81	+0.23/–0.23	3.90	+0.16/–0.15	–	–	–	–
10162436	1.41	+0.06/–0.06	3.95	+0.13/–0.12	1008.	+7./–7.	1.62	+0.05/–0.05
10355856	0.85	+0.09/–0.10	4.91	+0.13/–0.13	1146.	+3./–3.	3.36	+1.31/–0.73
10454113	2.45	+0.09/–0.09	3.71	+0.10/–0.10	2123.	+12./–12.	1.62	+0.07/–0.07
10909629	0.90	+0.24/–0.24	3.13	+0.12/–0.12	–	–	–	–
11081729	1.99	+0.22/–0.22	5.96	+0.23/–0.22	–	–	–	–
12009504	2.81	+0.16/–0.15	3.91	+0.30/–0.25	1781.	+14./–14.	2.05	+0.15/–0.13
12258514	2.43	+0.07/–0.07	3.99	+0.16/–0.16	1517.	+5./–5.	2.69	+0.10/–0.10
12317678	1.61	+0.13/–0.13	4.62	+0.11/–0.11	–	–	–	–
6442183	3.31	+0.55/–0.36	5.00	+3.40/–1.57	1190.	+19./–13.	6.72	+4.41/–1.91
11026764	4.73	+1.57/–0.92	3.40	+5.60/–1.28	941.	+31./–22.	5.44	+11.0/–2.20
12508433	3.40	+0.29/–0.29	1.41	+0.34/–0.22	808.	+8./–9.	3.60	+0.84/–0.54
11771760	0.87	+0.24/–0.24	1.24	+0.06/–0.05	–	–	–	–
Sun	4.97	+0.03/–0.03	4.65	+0.11/–0.11	3083.	+3./–4.	4.66	+0.10/–0.10

Notes. The first column provide the KIC numbers. The second and third columns provide the power law index and the 66-% credible error. The fourth and fifth columns provides the linewidth factor and the 66-% credible error. The sixth and seventh columns provides the frequency location of the dip and the 66-% credible error. The eighth and ninth columns provides the depth of the linewidth dip and the 66-% credible error.

Table 2. Width of the linewidth ($W_{\rm dip}$) as per Eq. (1) and of FWHM$_{\rm dip}$ as per Eq. (2).

KIC	$W_{\rm dip}$ (in μHz)	Uncertainty (in μHz)	FWHM$_{\rm dip}$ (in μHz)	Uncertainty (in μHz)
1435467	–	–	–	–
2837475	2154.	+286./–186	537.	+185./–142.
3424541	–	–	–	–
3733735	–	–	–	–
6116048	2862.	+58./–60.	688.	+40./–44.
6508366	–	–	–	–
6679371	913.	25./–15.	58.	+23./–14.
7103006	–	–	–	–
7206837	–	–	–	–
8379927	4102.	+144/–139.	1152.	+99./–97.
8694723	1846.	+50./–50.	364.	+39./–39.
9139151	3385.	+386./–257.	673.	+286./–208.
9139163	–	–	–	–
9206432	–	–	–	–
9812850	–	–	–	–
10162436	1278.	+42./–39.	240.	+33./–32.
10355856	1192.	+8./–6.	44.	+8./–6.
10454113	2344.	+44./–38.	215.	+39./–37.
10909629	–	–	–	–
11081729	–	–	–	–
12009504	2230.	+88./–77.	403.	+66./–63.
12258514	1929.	+33./–34.	365.	+27./–27.
12317678	–	–	–	–
6442183	1936.	+229./–161.	582.	+139./–106.
11026764	1291.	+203./–131.	351.	+127./–97.
12508433	1095.	+71./–57.	264.	+51./–45.
11771760	–	–	–	–
Sun	4646.	+30./–31.	1303.	+20./–21.

Notes. The first column provide the KIC numbers. The second and third columns provide the width parameter of the dip and the 66-% credible error. The fourth and fifth columns provides the FWHM of the dip and the 66-% credible error.