

## Appendix: Surface modulation signals of 58 $\gamma$ Dor stars

Gang Li<sup>1,3</sup><sup>★</sup>, Timothy Van Reeth<sup>1,2,3</sup>, Timothy R. Bedding<sup>1,3</sup><sup>†</sup>, Simon J. Murphy<sup>1,3</sup>,  
Victoria Antoci<sup>3</sup>, Rhita-Maria Ouazzani<sup>4</sup>, Nicholas H. Barbara<sup>1,3</sup>

<sup>1</sup>*Sydney Institute for Astronomy (SIfA), School of Physics, 2006 University of Sydney, Australia*

<sup>2</sup>*Institute of Astronomy, KU Leuven, Celestijnenlaan 200D, B-3001 Leuven, Belgium*

<sup>3</sup>*Stellar Astrophysics Centre, Department of Physics and Astronomy, Aarhus University, Ny Munkegade 120, DK-8000 Aarhus C, Denmark*

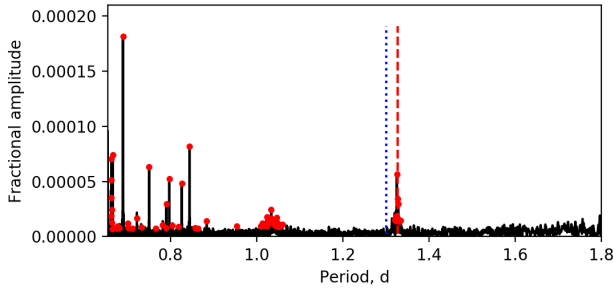
<sup>4</sup>*LESIA, Observatoire de Paris, PSL Research University, CNRS, Sorbonne Universités, UPMC Univ. Paris 06, Univ. Paris Diderot, Sorbonne Paris Cité, 5 place Jules Janssen, 92195 Meudon, France*

Accepted XXX. Received YYY; in original form ZZZ

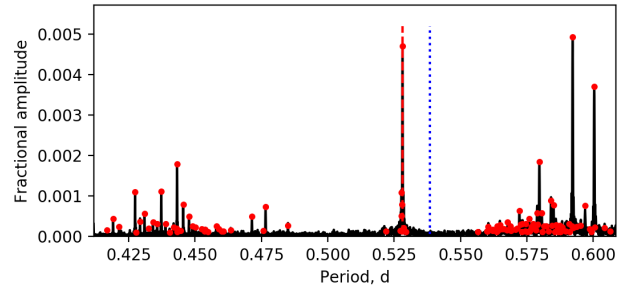
### ABSTRACT

We present 58  $\gamma$  Dor stars which show surface modulation signals.

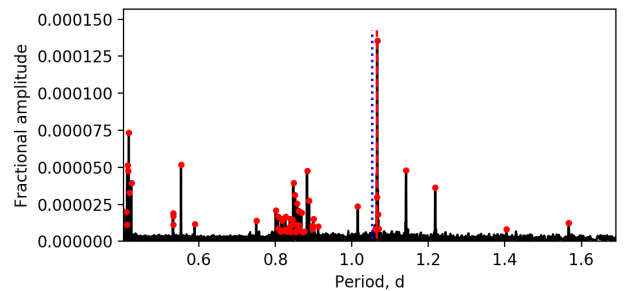
**Key words:** stars: oscillations – stars: rotation – stars: variables



**Figure 1.** The near-core and surface rotations of KIC 2846358. The red dots show the frequencies. The vertical blue dotted line displays the near-core rotation period while the red dashed line shows the surface rotation period.



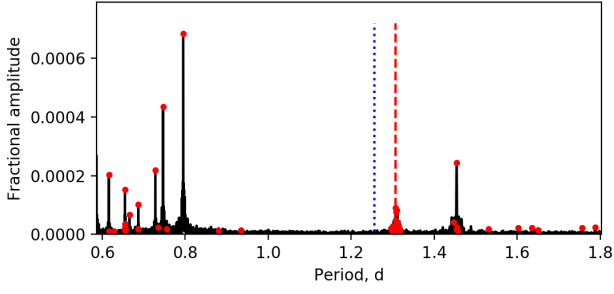
**Figure 2.** The surface modulation of KIC 3341457.



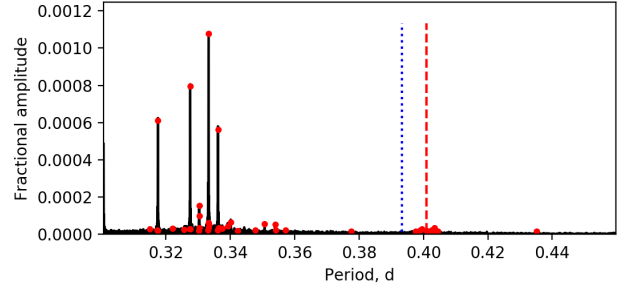
**Figure 3.** The surface modulation of KIC 3440840.

<sup>★</sup> E-mail: gali8292@uni.sydney.edu.au

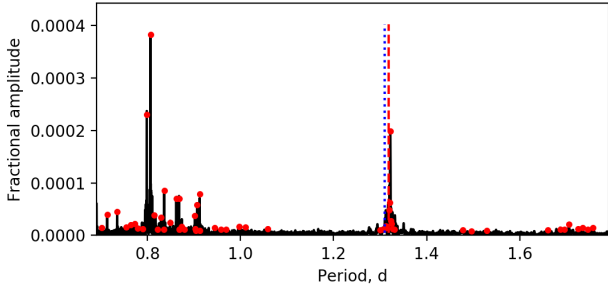
<sup>†</sup> E-mail: tim.bedding@sydney.edu.au



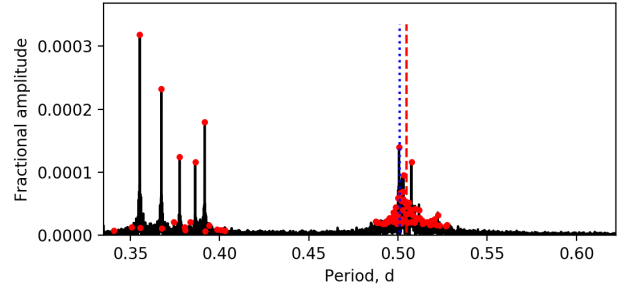
**Figure 4.** The surface modulation of KIC 3967085.



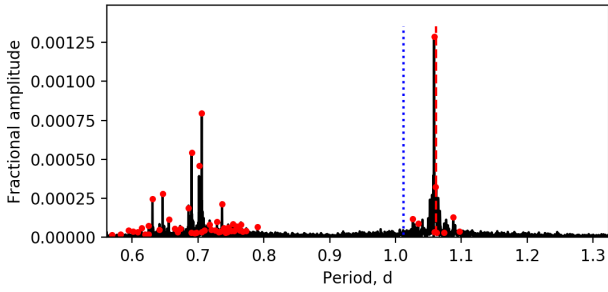
**Figure 8.** The surface modulation of KIC 4951030.



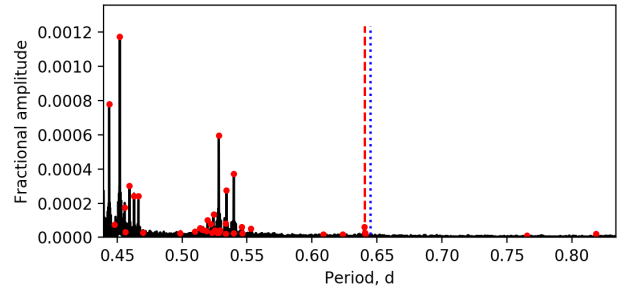
**Figure 5.** The surface modulation of KIC 4171102.



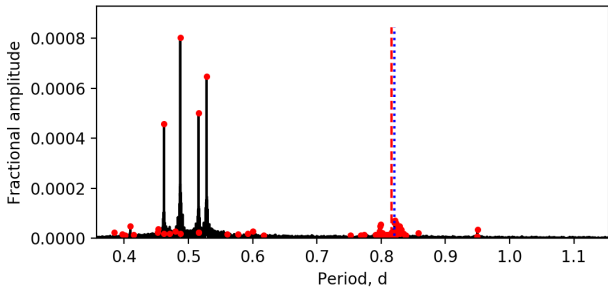
**Figure 9.** The surface modulation of KIC 5021329.



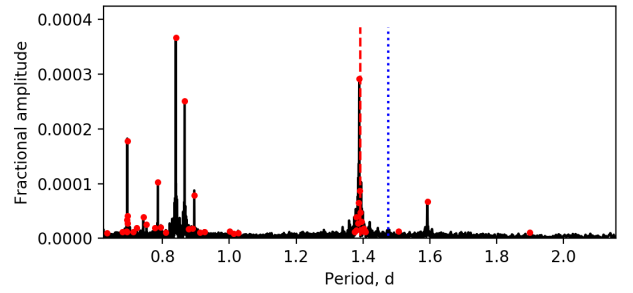
**Figure 6.** The surface modulation of KIC 4567531.



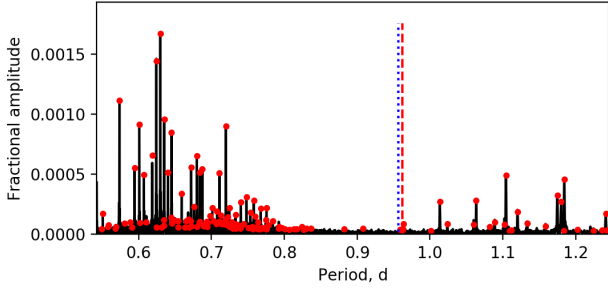
**Figure 10.** The surface modulation of KIC 5025464.



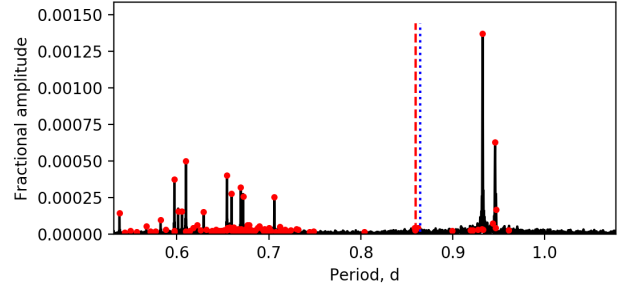
**Figure 7.** The surface modulation of KIC 4932417.



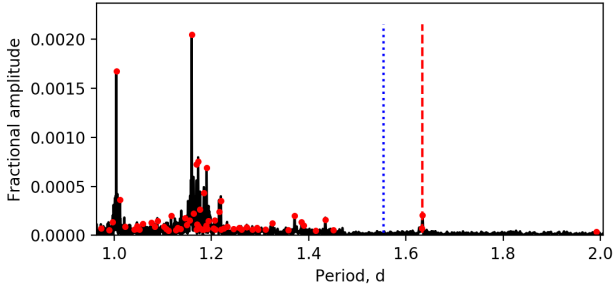
**Figure 11.** The surface modulation of KIC 5115637.



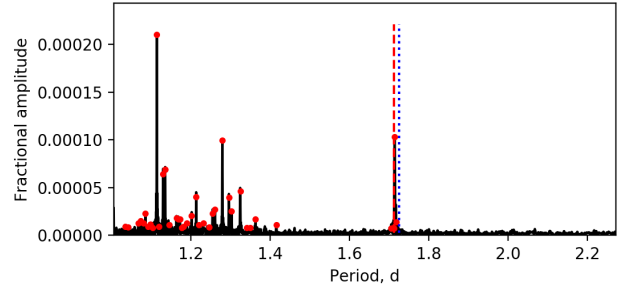
**Figure 12.** The surface modulation of KIC 5210153.



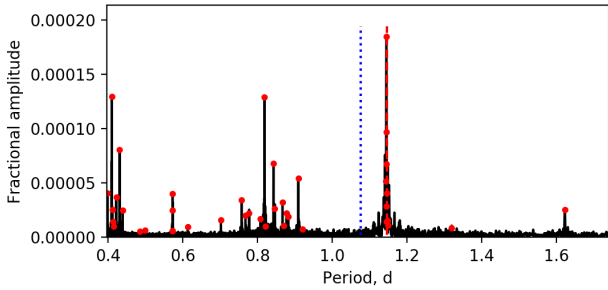
**Figure 16.** The surface modulation of KIC 5652678.



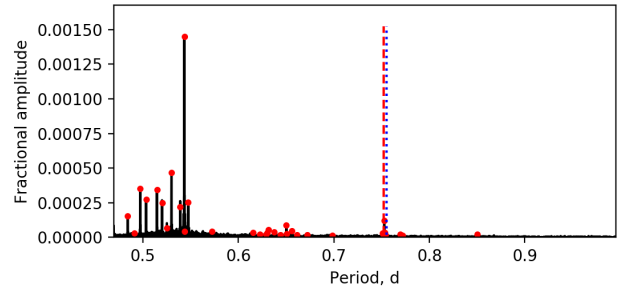
**Figure 13.** The surface modulation of KIC 5370431.



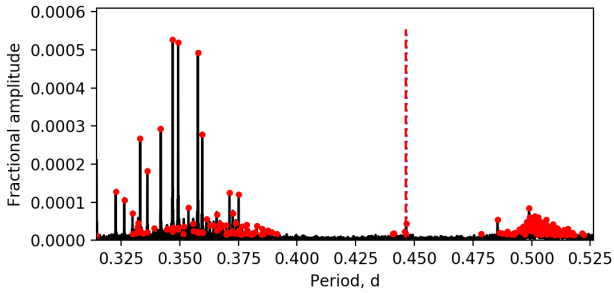
**Figure 17.** The surface modulation of KIC 5876187.



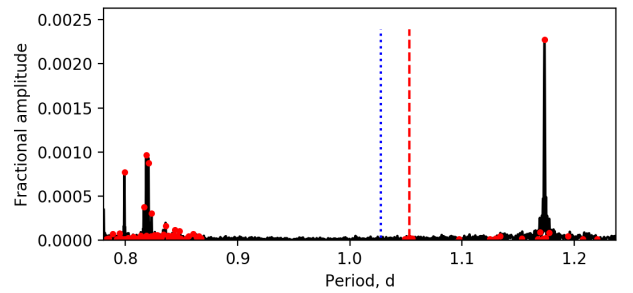
**Figure 14.** The surface modulation of KIC 5374279.



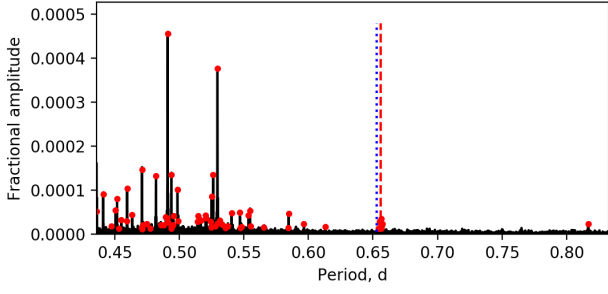
**Figure 18.** The surface modulation of KIC 5954264.



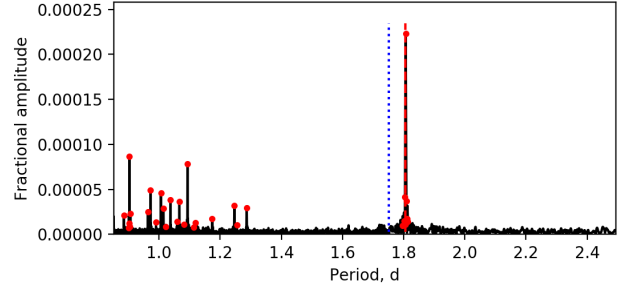
**Figure 15.** The surface modulation of KIC 5608334.



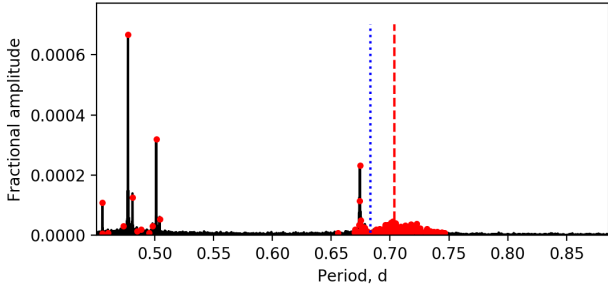
**Figure 19.** The surface modulation of KIC 5978913.



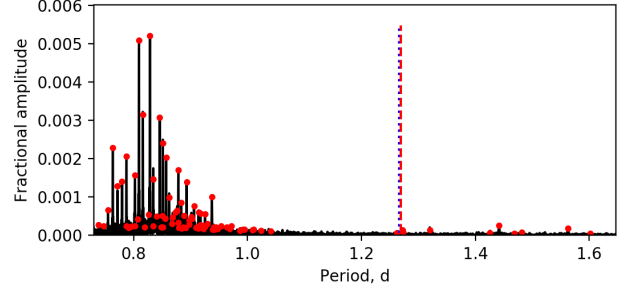
**Figure 20.** The surface modulation of KIC 6041803.



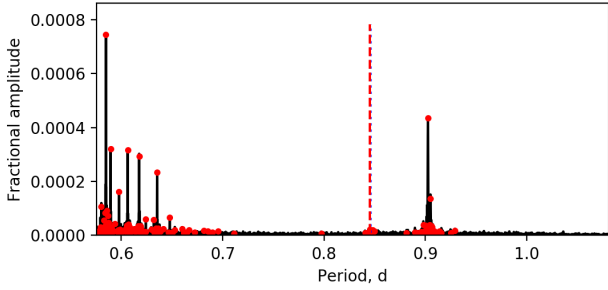
**Figure 24.** The surface modulation of KIC 6469690.



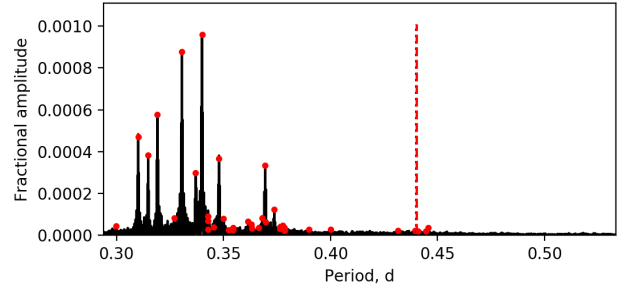
**Figure 21.** The surface modulation of KIC 6284209.



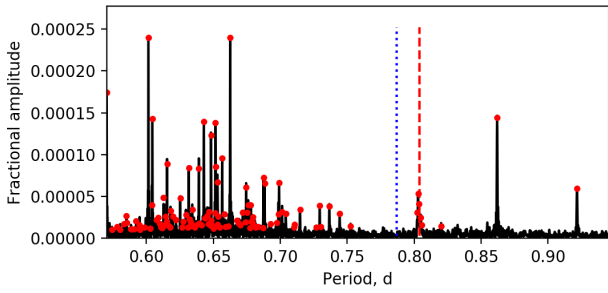
**Figure 25.** The surface modulation of KIC 6935014.



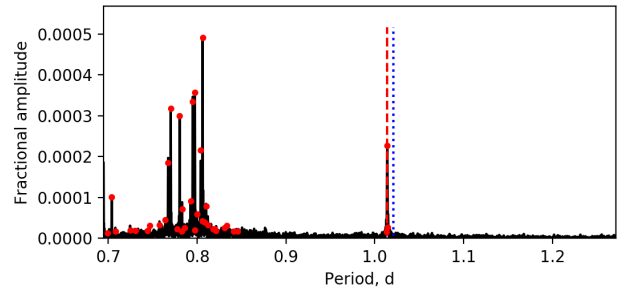
**Figure 22.** The surface modulation of KIC 6366512.



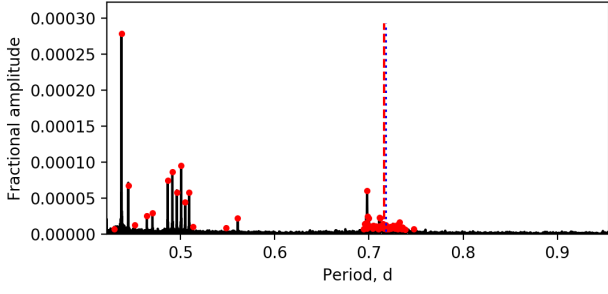
**Figure 26.** The surface modulation of KIC 7059699.



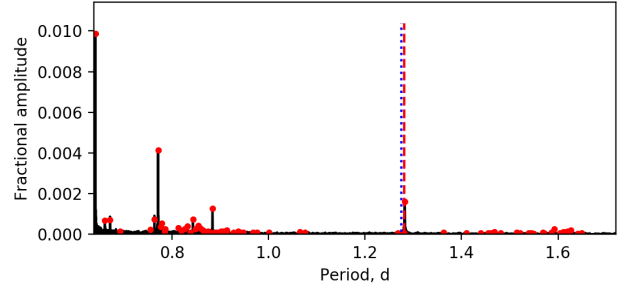
**Figure 23.** The surface modulation of KIC 6445969.



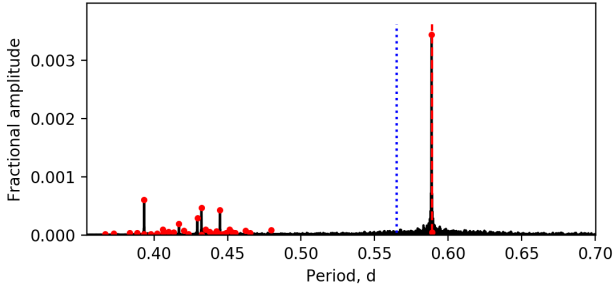
**Figure 27.** The surface modulation of KIC 7287165.



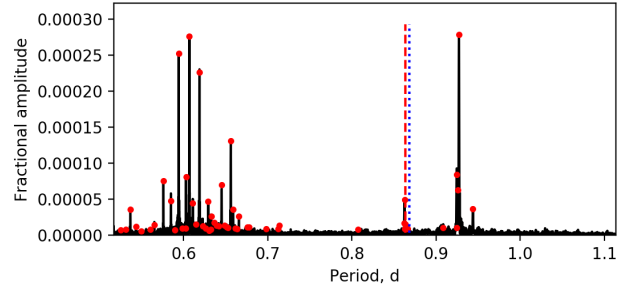
**Figure 28.** The surface modulation of KIC 7344999.



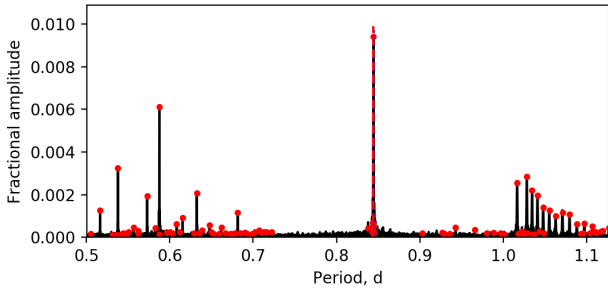
**Figure 32.** The surface modulation of KIC 7621649.



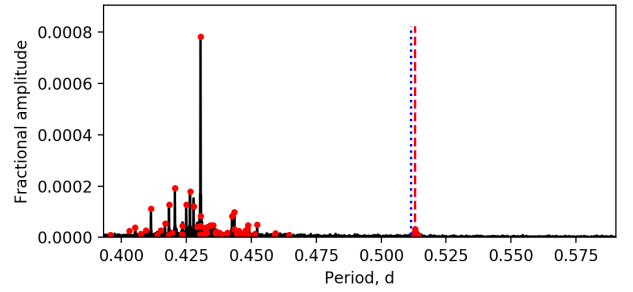
**Figure 29.** The surface modulation of KIC 7434470.



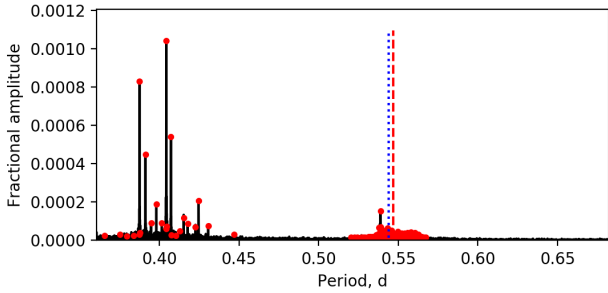
**Figure 33.** The surface modulation of KIC 7840642.



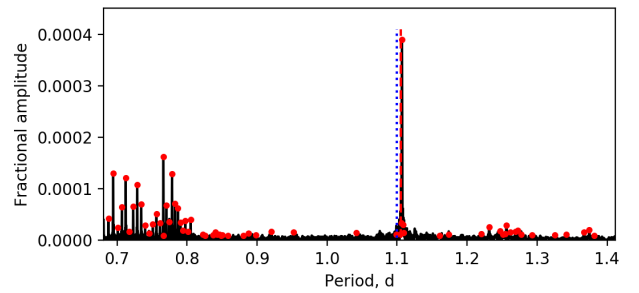
**Figure 30.** The surface modulation of KIC 7596250.



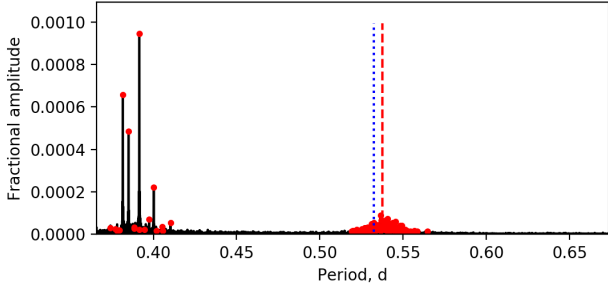
**Figure 34.** The surface modulation of KIC 7968803.



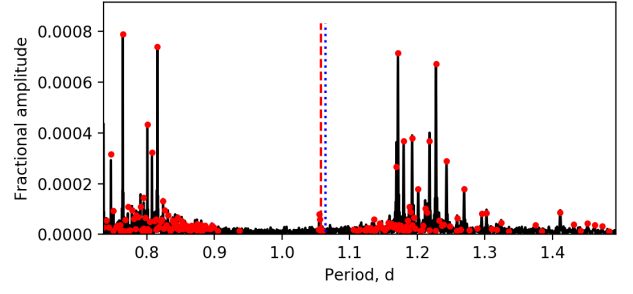
**Figure 31.** The surface modulation of KIC 7620654.



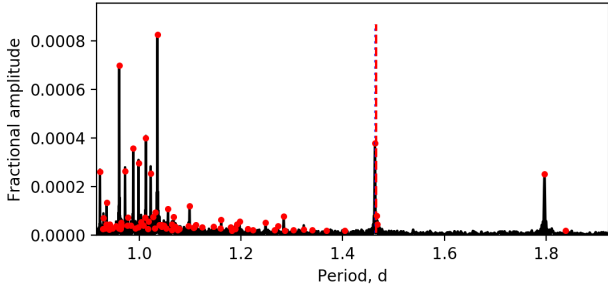
**Figure 35.** The surface modulation of KIC 8180062.



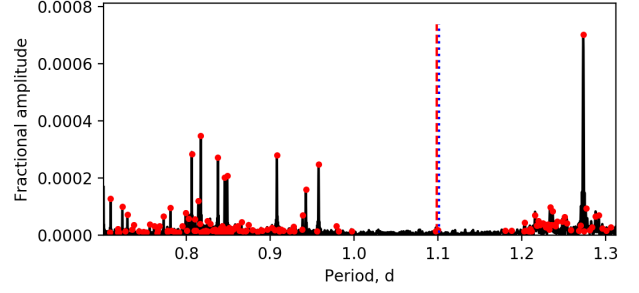
**Figure 36.** The surface modulation of KIC 8197019.



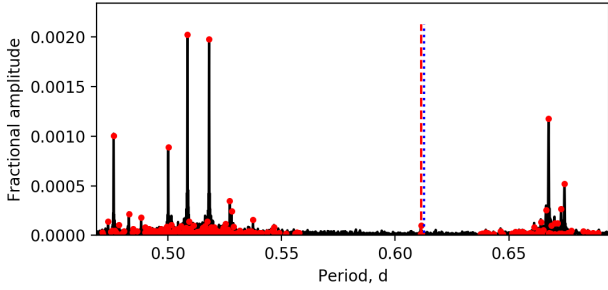
**Figure 40.** The surface modulation of KIC 9573582.



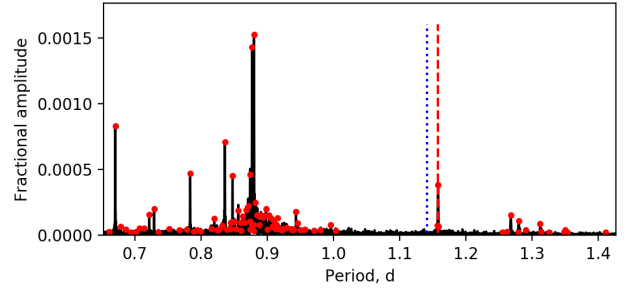
**Figure 37.** The surface modulation of KIC 8264667.



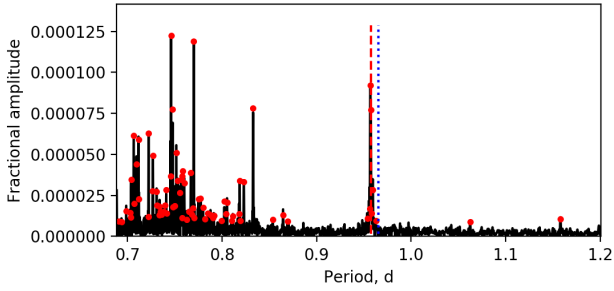
**Figure 41.** The surface modulation of KIC 9652302.



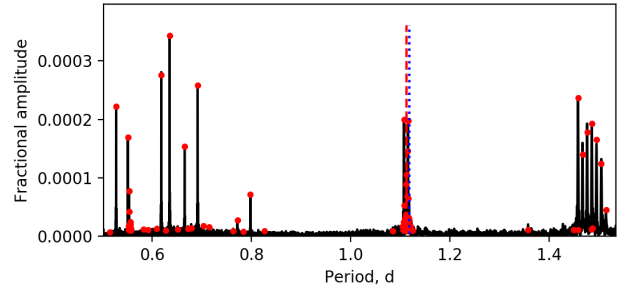
**Figure 38.** The surface modulation of KIC 8264708.



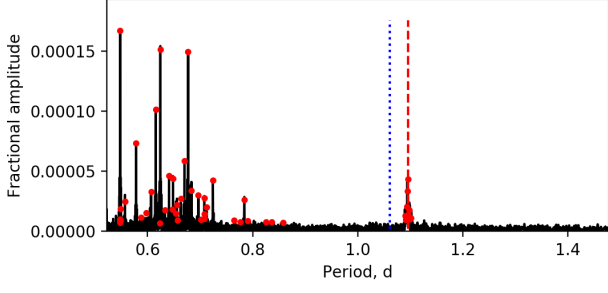
**Figure 42.** The surface modulation of KIC 9716350.



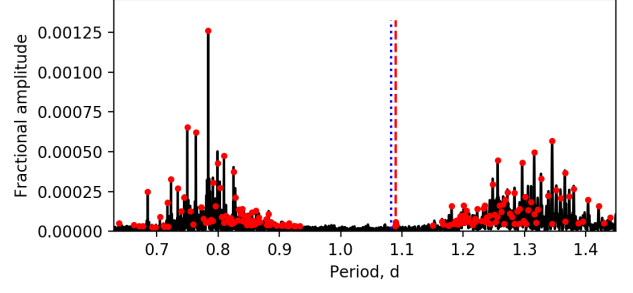
**Figure 39.** The surface modulation of KIC 8293692.



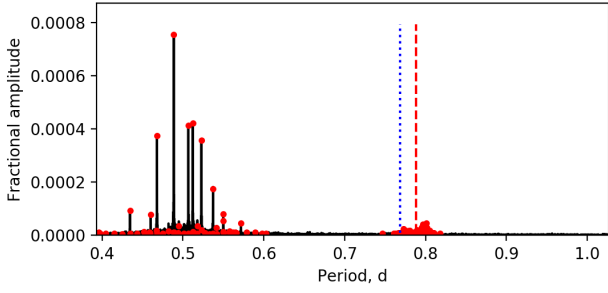
**Figure 43.** The surface modulation of KIC 9716563.



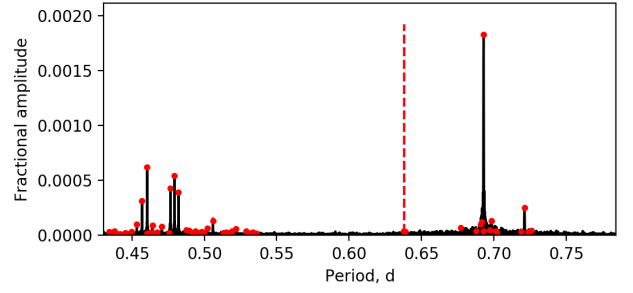
**Figure 44.** The surface modulation of KIC 9847243.



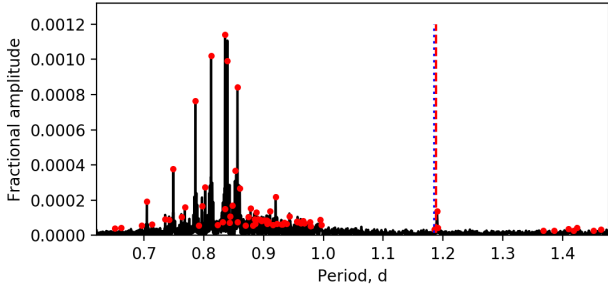
**Figure 48.** The surface modulation of KIC 10483230.



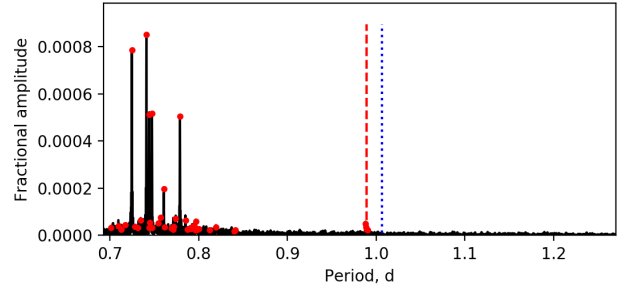
**Figure 45.** The surface modulation of KIC 10347481.



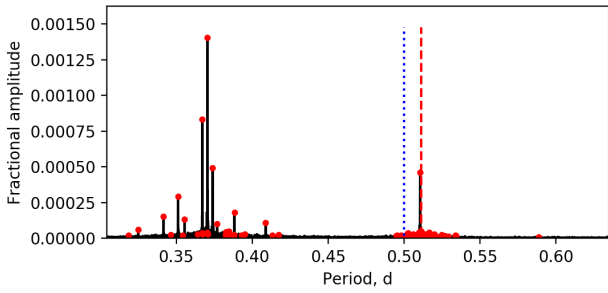
**Figure 49.** The surface modulation of KIC 10669515.



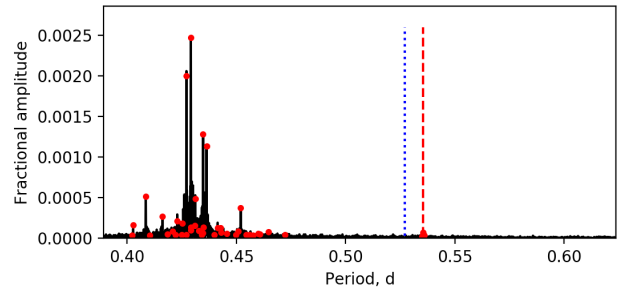
**Figure 46.** The surface modulation of KIC 10423501.



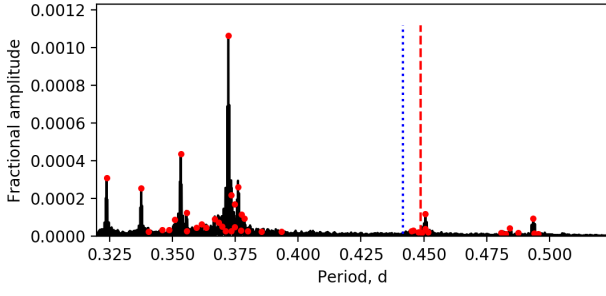
**Figure 50.** The surface modulation of KIC 10803371.



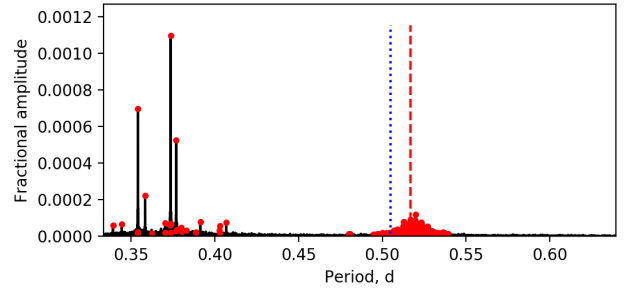
**Figure 47.** The surface modulation of KIC 10470294.



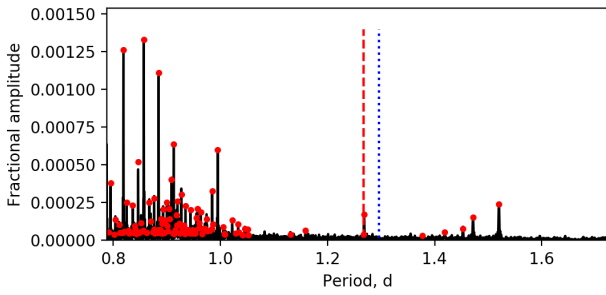
**Figure 51.** The surface modulation of KIC 11183399.



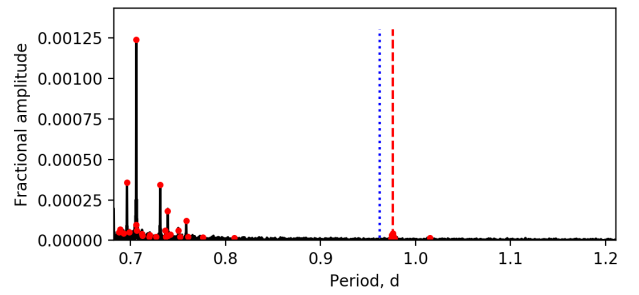
**Figure 52.** The surface modulation of KIC 11201483.



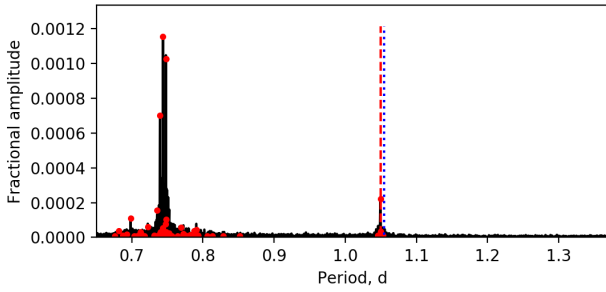
**Figure 55.** The surface modulation of KIC 11462151.



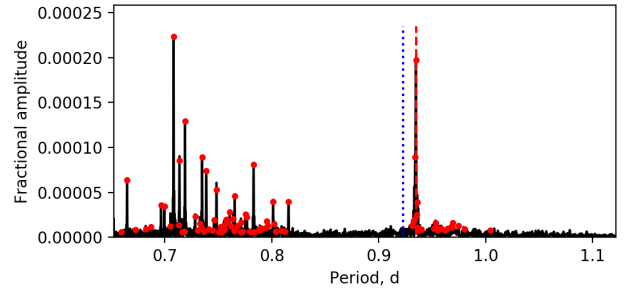
**Figure 53.** The surface modulation of KIC 11294808.



**Figure 56.** The surface modulation of KIC 11520274.

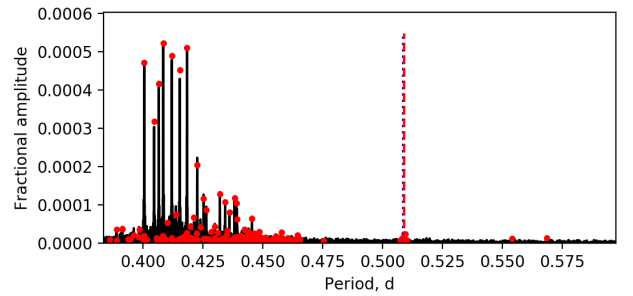


**Figure 54.** The surface modulation of KIC 11395936.



**Figure 57.** The surface modulation of KIC 11922283.

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**Figure 58.** The surface modulation of KIC 12202137.