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The active Sun and its implication for the heliosphere
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A comparison of quasi-periodic pulsations in different wavebands

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Quasi-periodic oscillations (or "pulsations") have been observed in the rising phase of solar flares for many years. Here we compare the short-period oscillations (around 10 s) observed during several events by many instruments: the radiometer channels of PROBA2/LYRA (soft X-ray, Lyman alpha, Herzberg continuum), the radiometer channels of SDO/EVE-ESP (soft X-ray, coronal and chromospheric passbands), the RHESSI passbands and short-wavelength radio observations. For the first time, we observed and studied significant and systematic phase delays between oscillations in different wavelength bands. Our results show a quarter period phase shift between the soft X-ray emission and EUV emission. This suggests an interpretation of the quasi-periodic pulsations in terms of MHD oscillations in the flaring loops.