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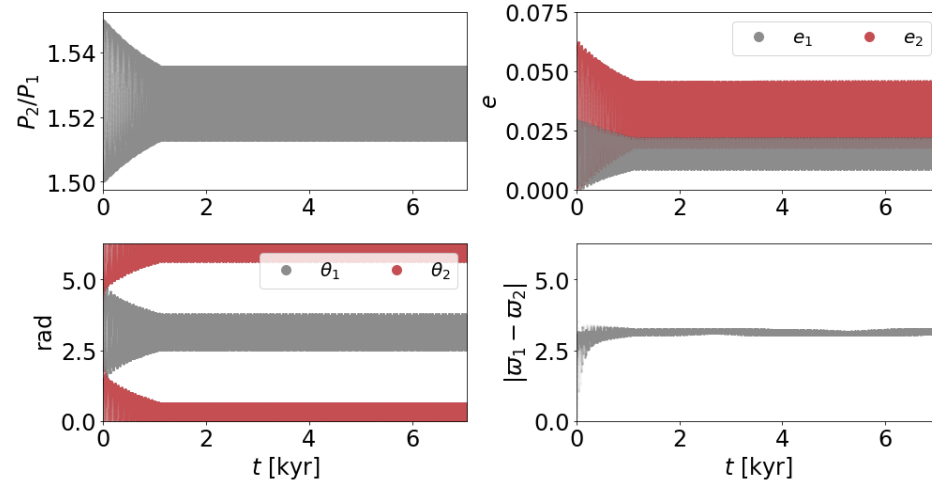
## 1 Introduction

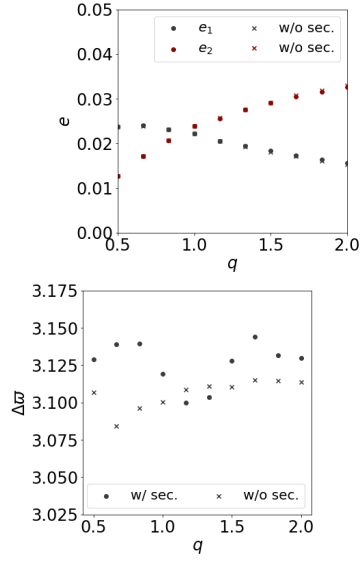
## 2 Planet Migration

### 2.1 MMR

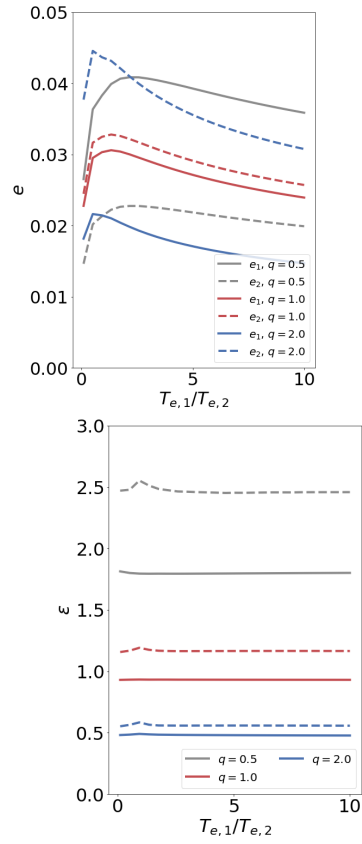
### 2.2 Equilibrium

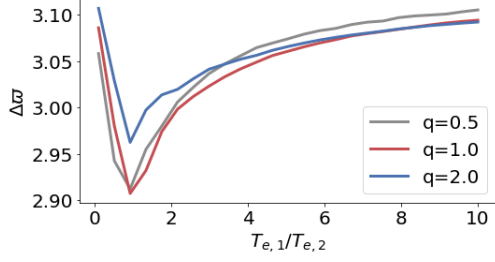
q=2





## 2.3 Eccentricity damping timescales

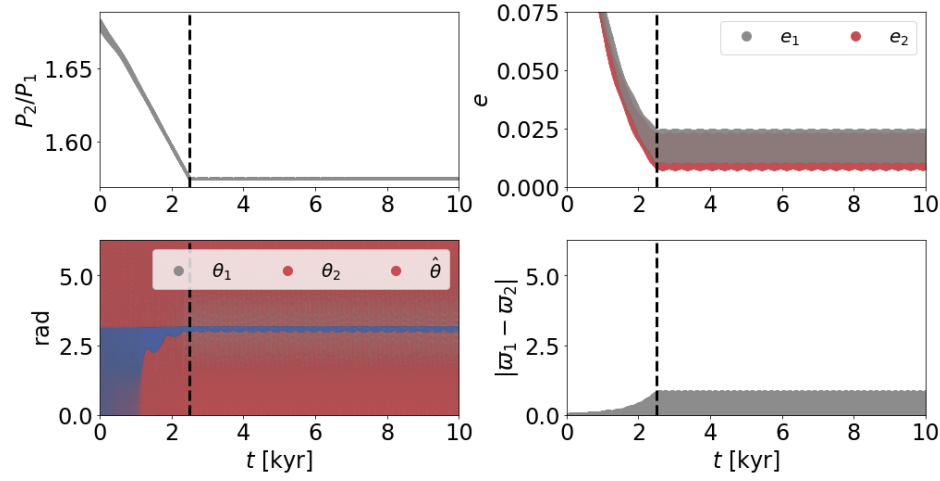




### 3 Apsidal Alignment

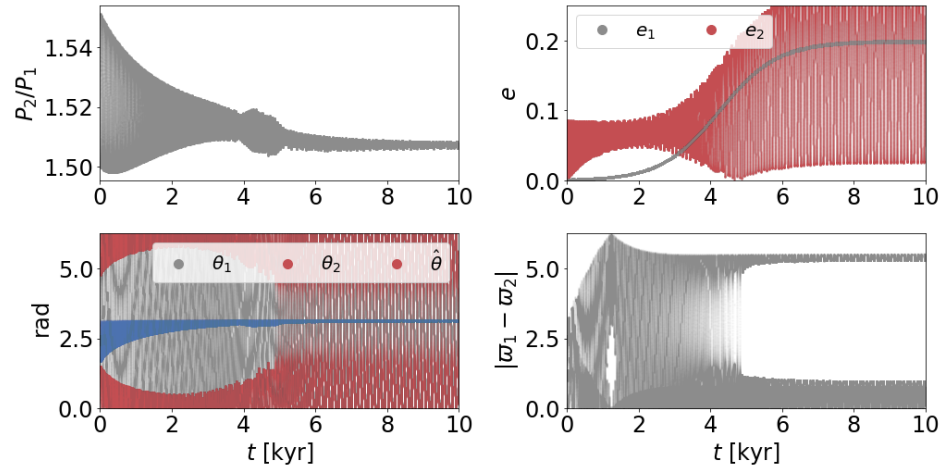
#### 3.1 Large initial eccentricities

$q=1$



#### 3.2 Eccentricity driving forces

$q=100$



## 4 Conclusion

## 5 Appendix

### 5.1 Elliptic restricted 3 body problem