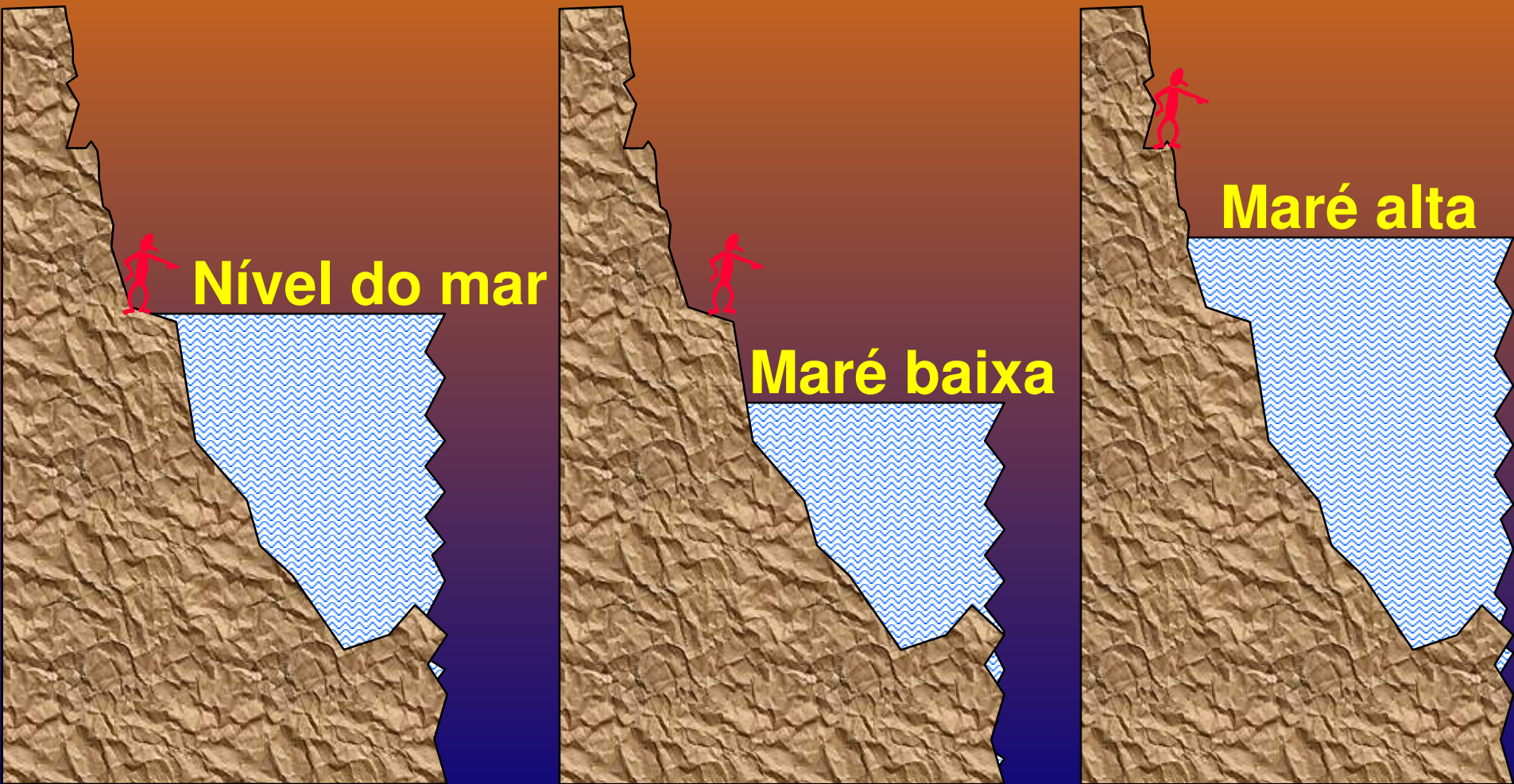


As Marés

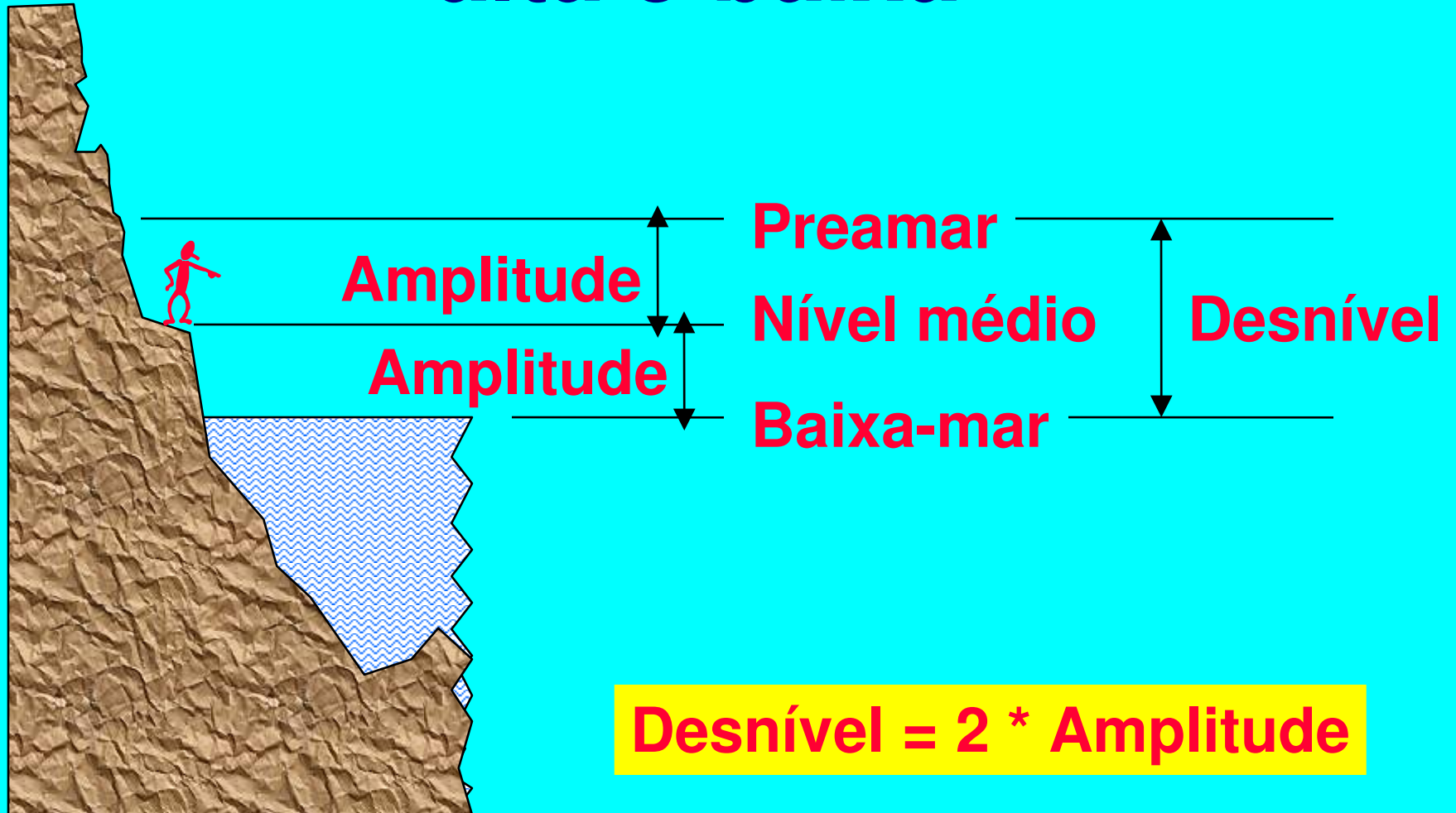
Roberto Bockzo – IAG/USP

Roberto Ortiz - EACH/USP

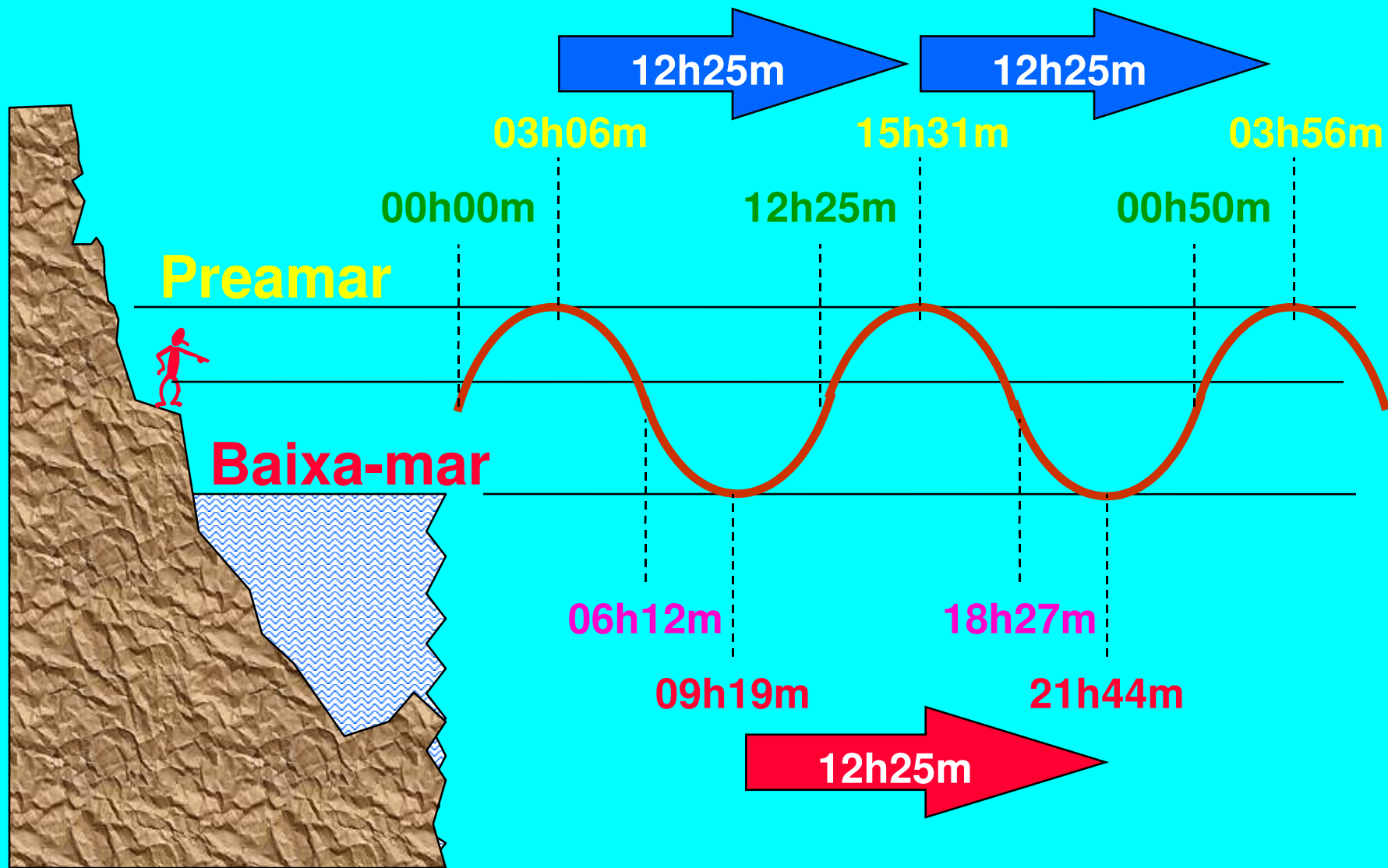
Observando o nível do mar



Desnível entre as marés alta e baixa

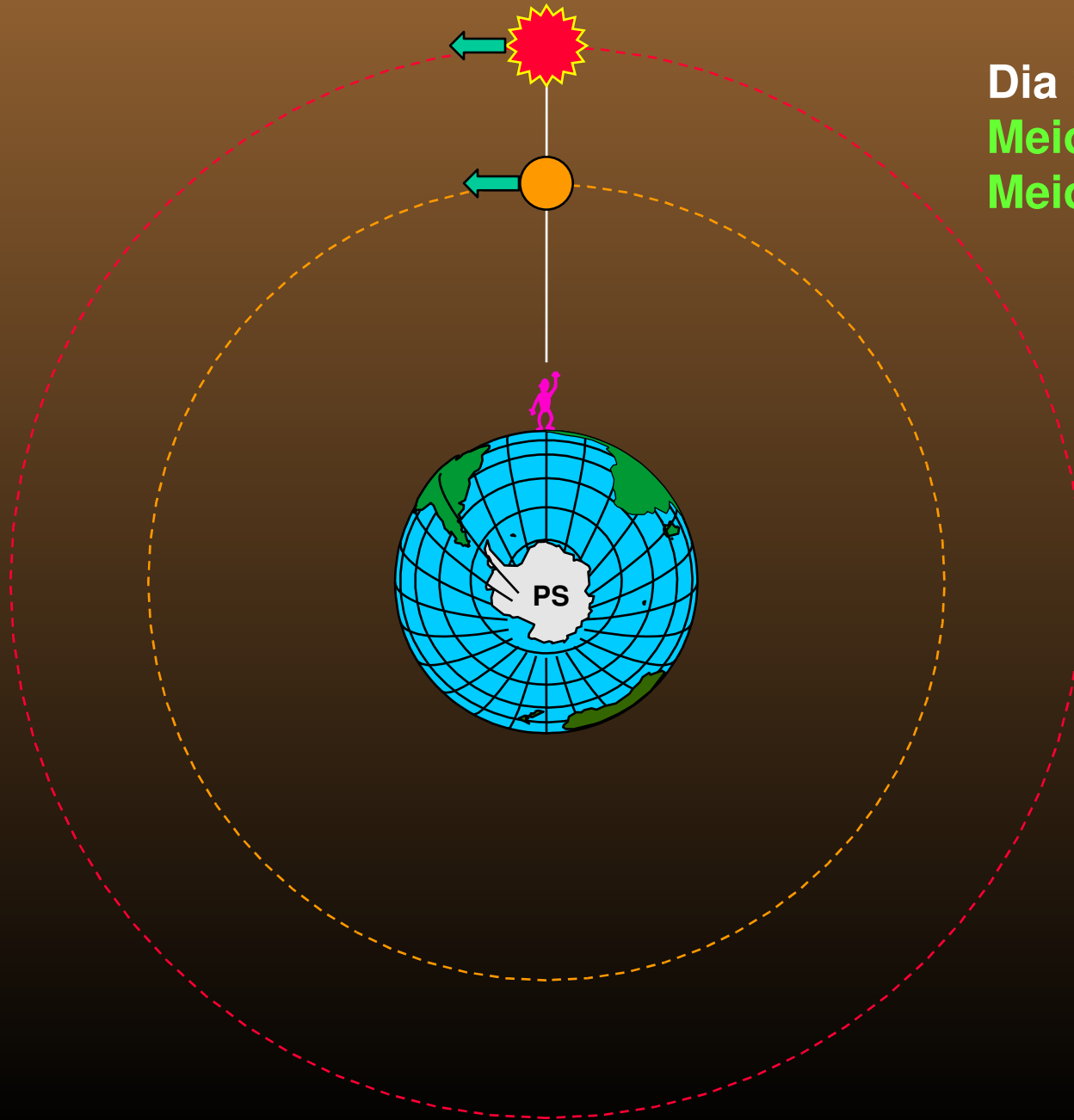


Intervalo de tempo entre marés



Períodos relacionados à maré

Dia Solar e Dia Lunar

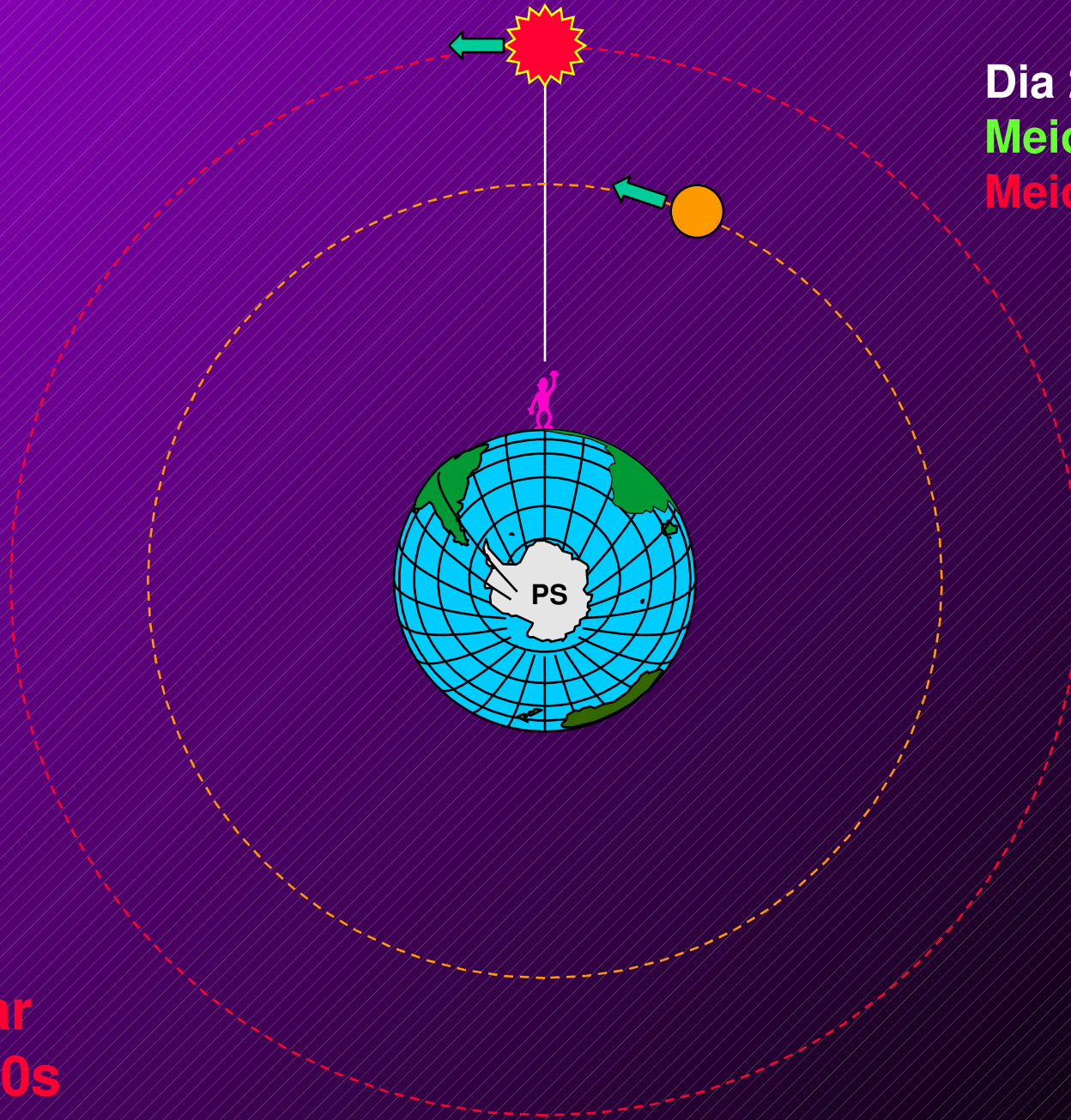


Dia 1

Meio-dia solar

Meio-dia lunar

Dia Solar e Dia Lunar



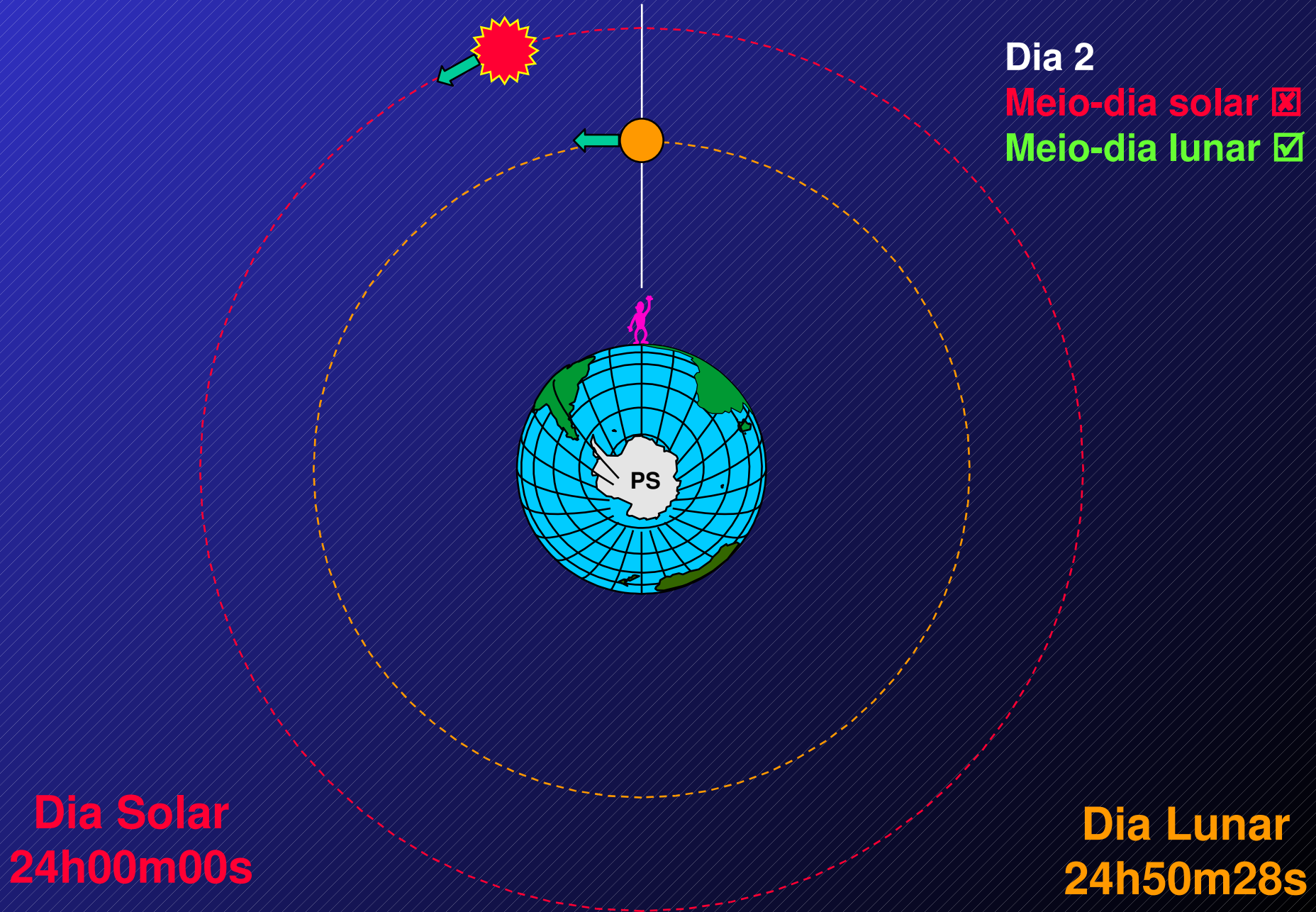
Dia 2

Meio-dia solar

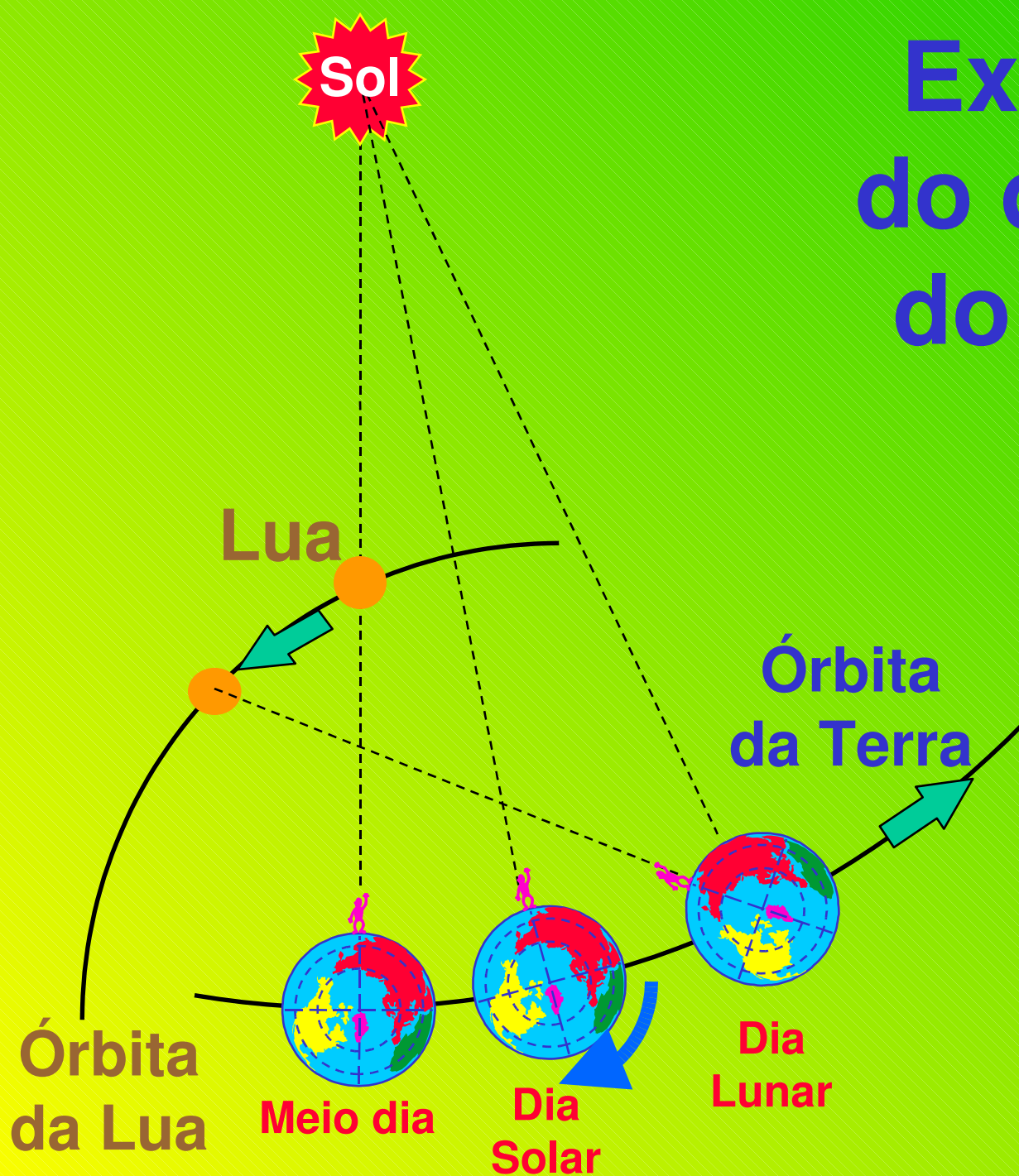
Meio-dia lunar

Dia Solar
24h00m00s

Dia Solar e Dia Lunar



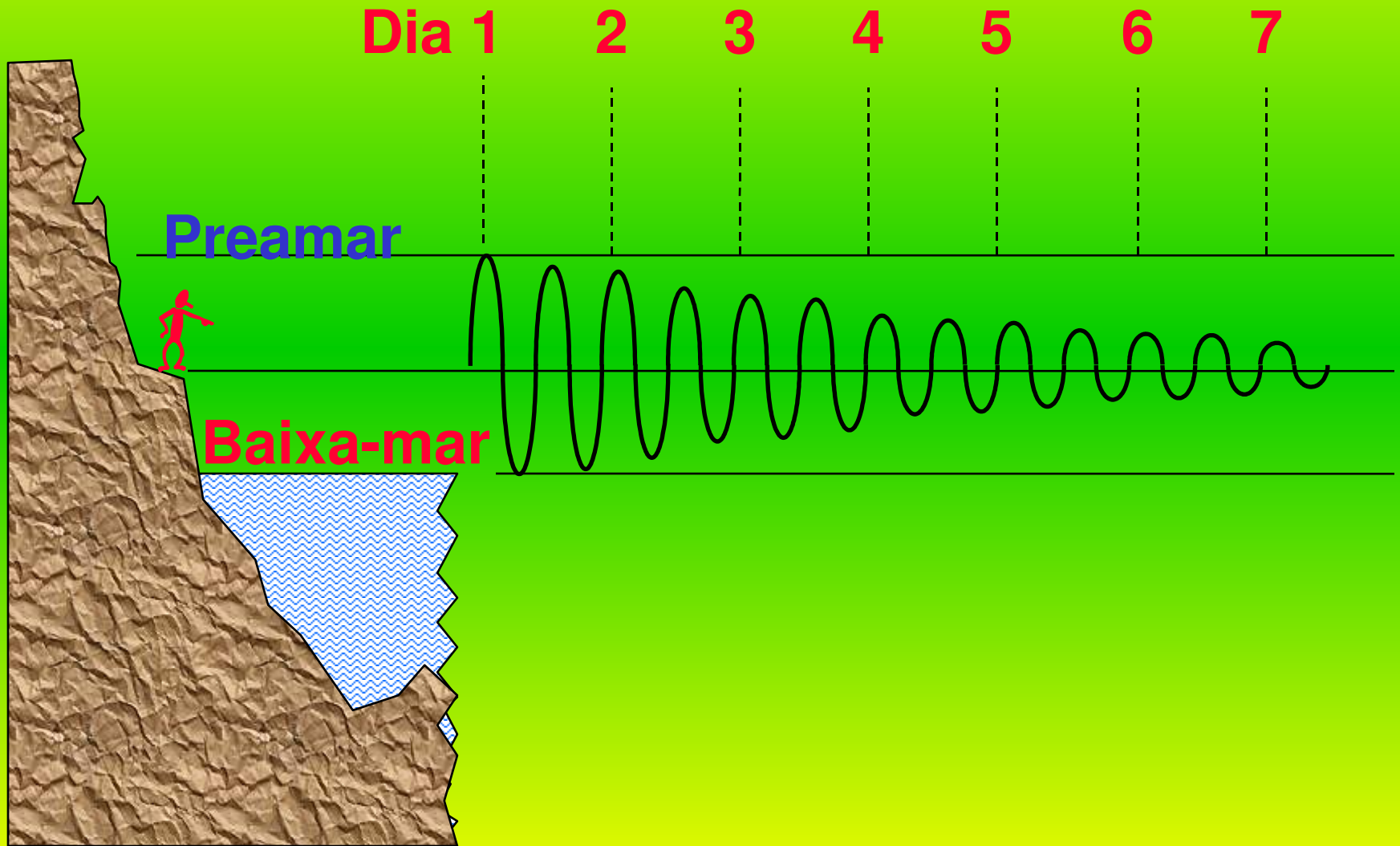
Explicação do dia solar e do dia lunar



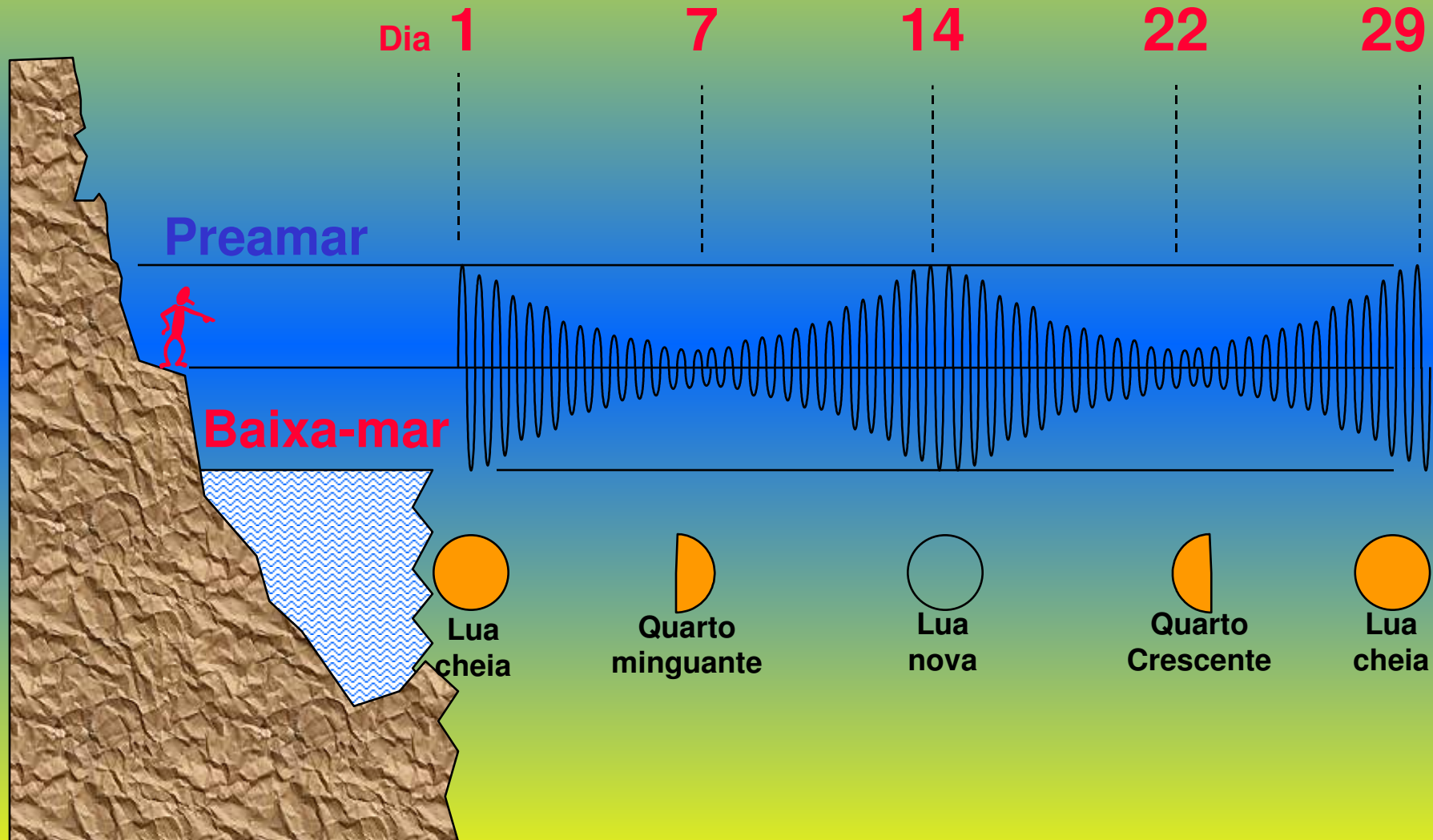
Dia Solar
24h00m00s

Dia Lunar
24h50m28s

Mudança diária no nível da maré

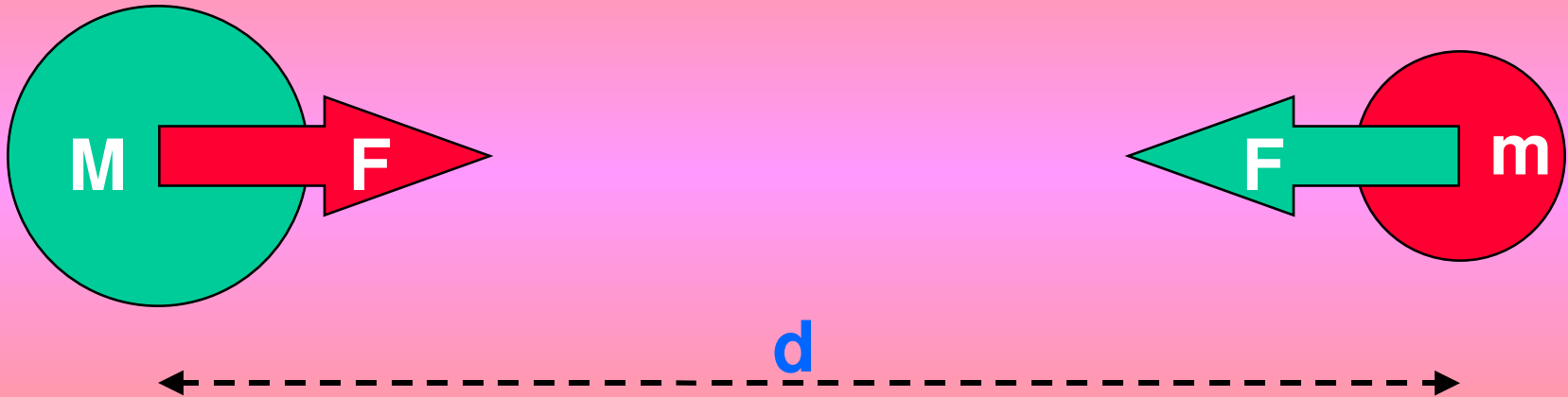


Influência da fase da Lua sobre a altura da maré



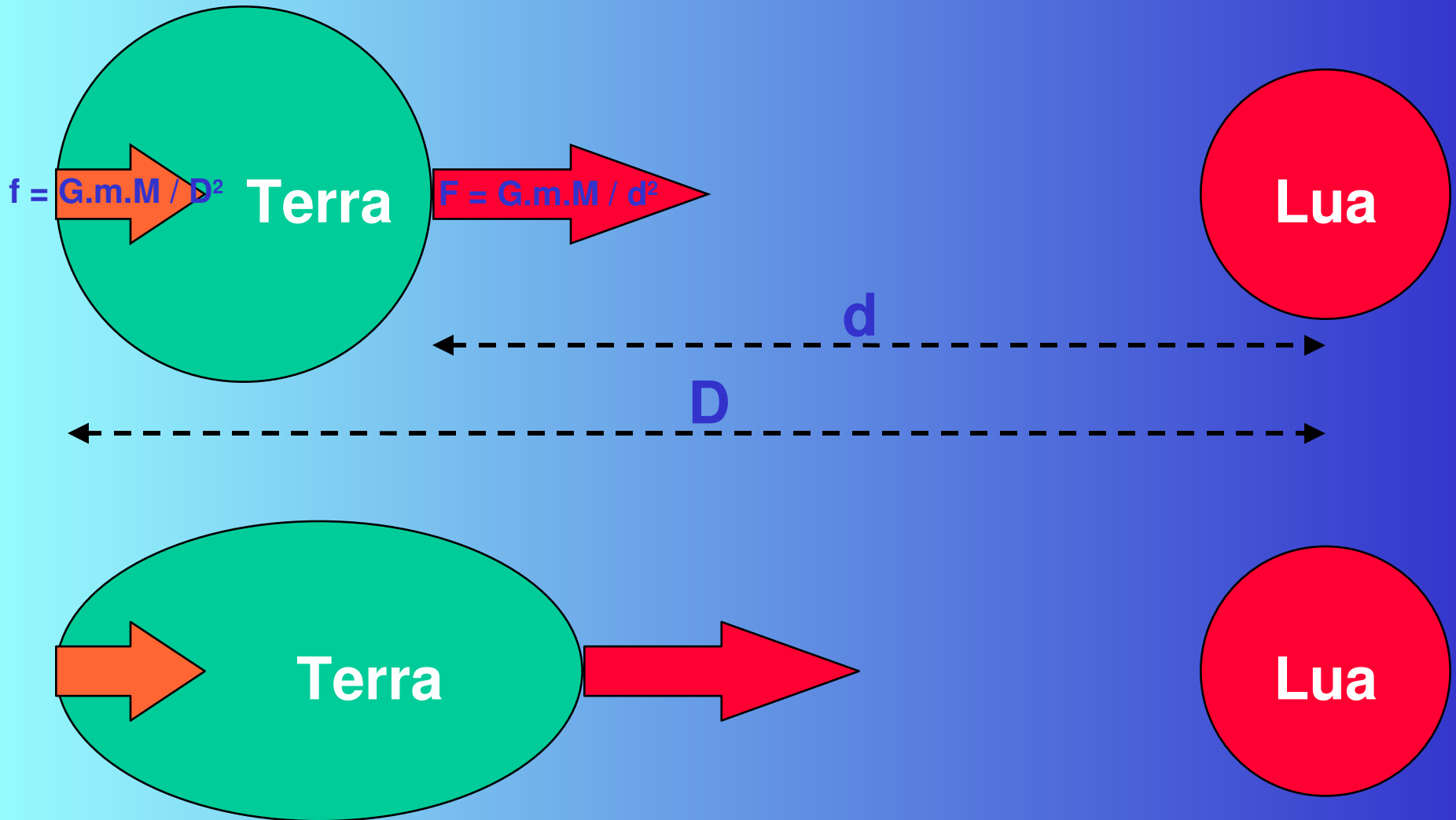
Causas da maré

Atração Gravitacional (Newton)



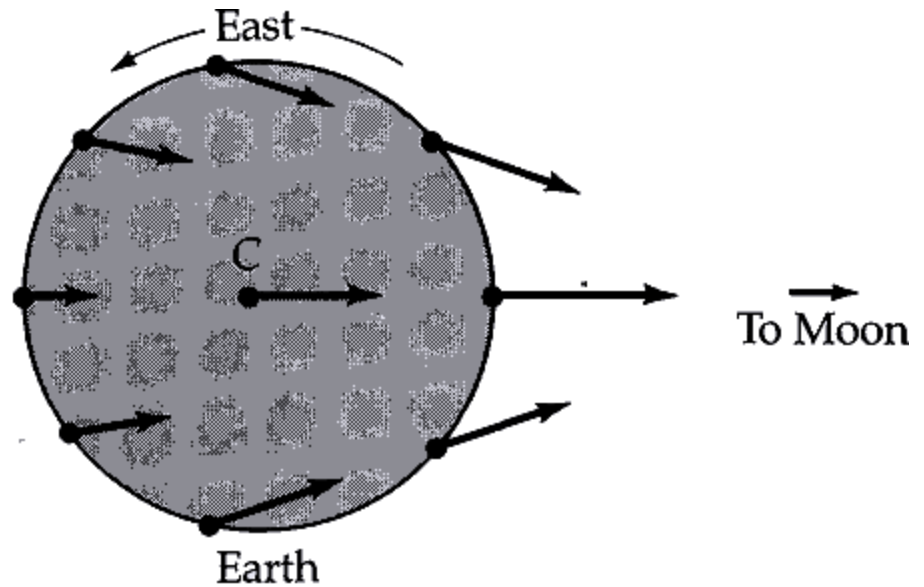
$$F = G.m.M / d^2$$

A atração da Lua não age igualmente sobre todos os pontos da Terra



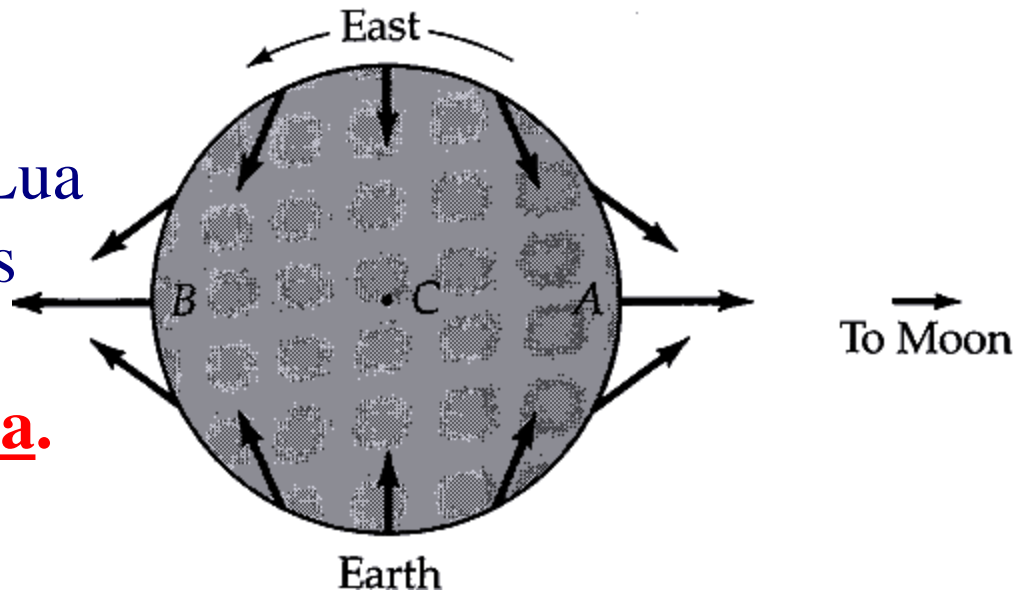
Força exercida pela Lua sobre diversos pontos da Terra.

Referencial no centro de massa Terra-Lua.

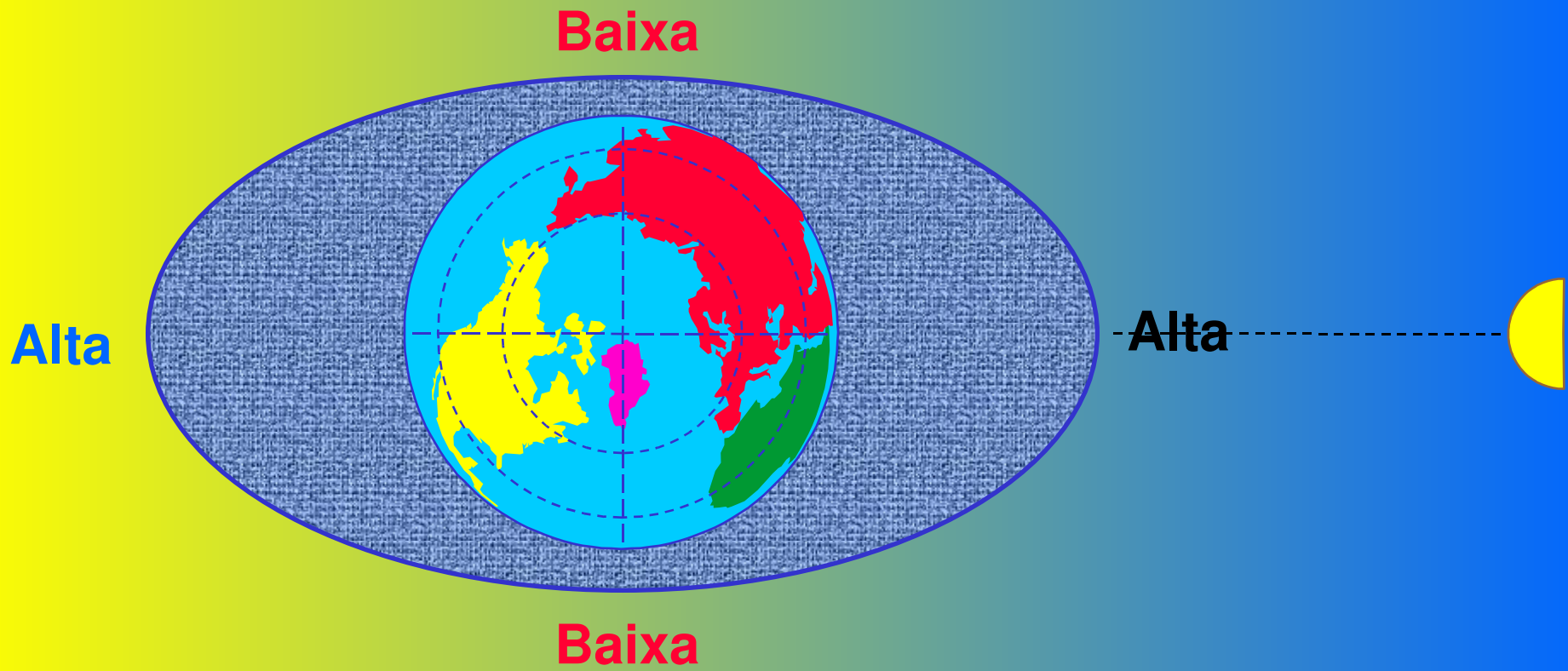


Força exercida pela Lua sobre diversos pontos da Terra.

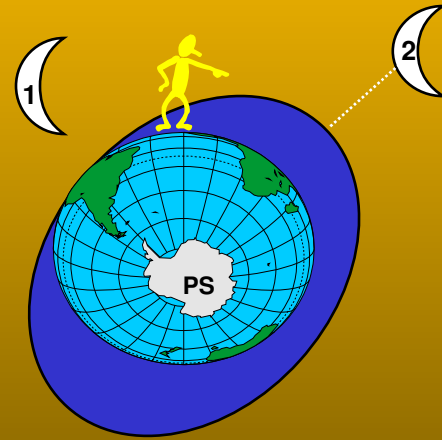
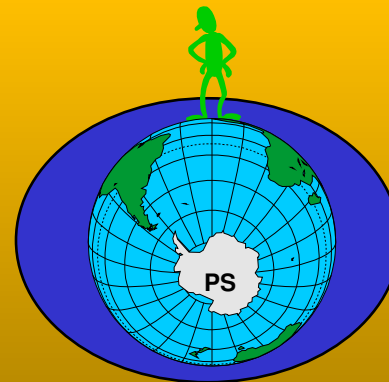
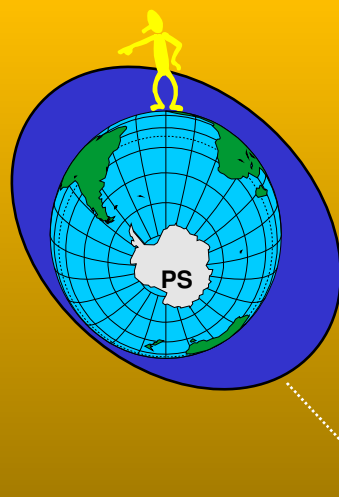
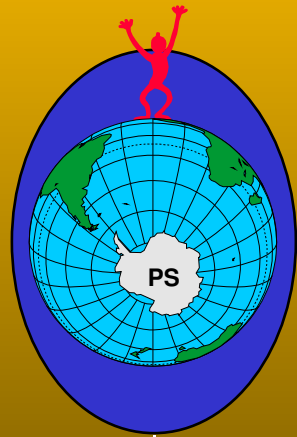
Referencial na Terra.



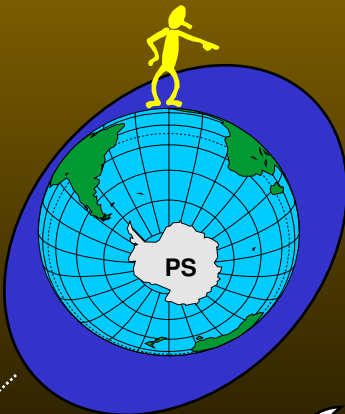
Configuração instantânea das marés na superfície da Terra



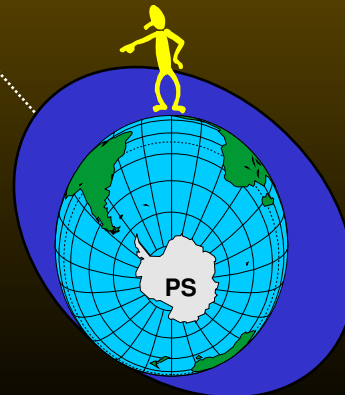
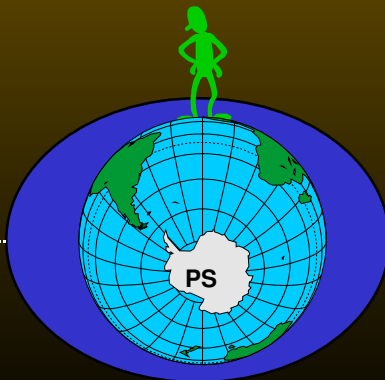
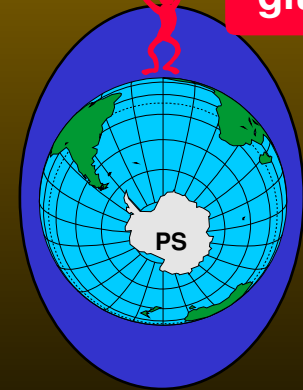
Glub-
glub...



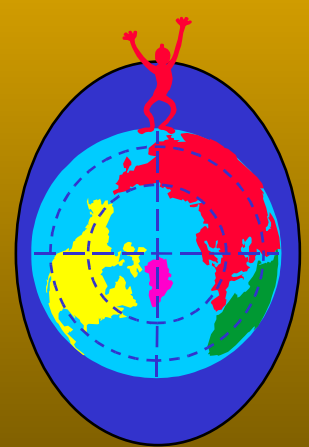
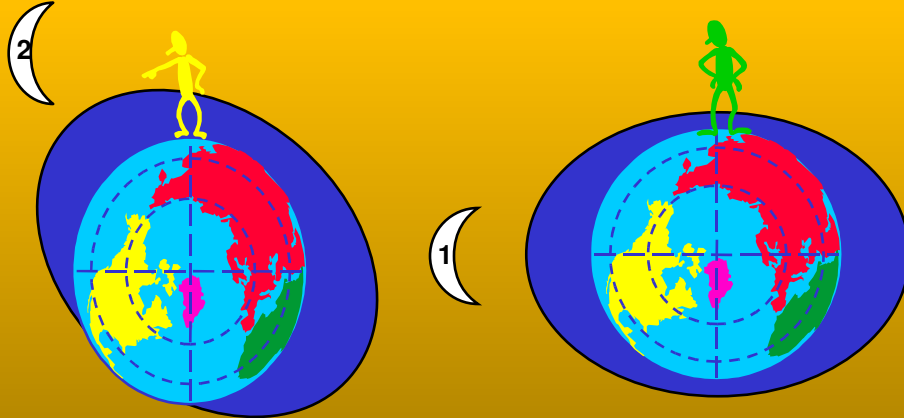
Seqüência da Maré



Glub-
glub...

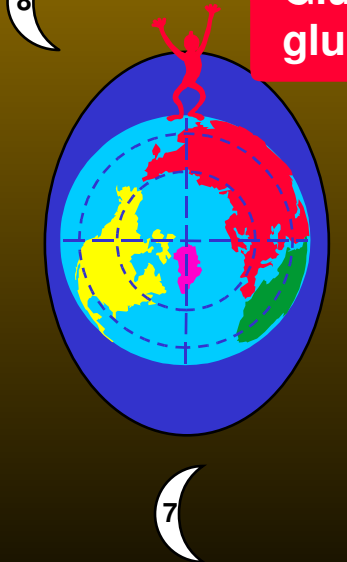
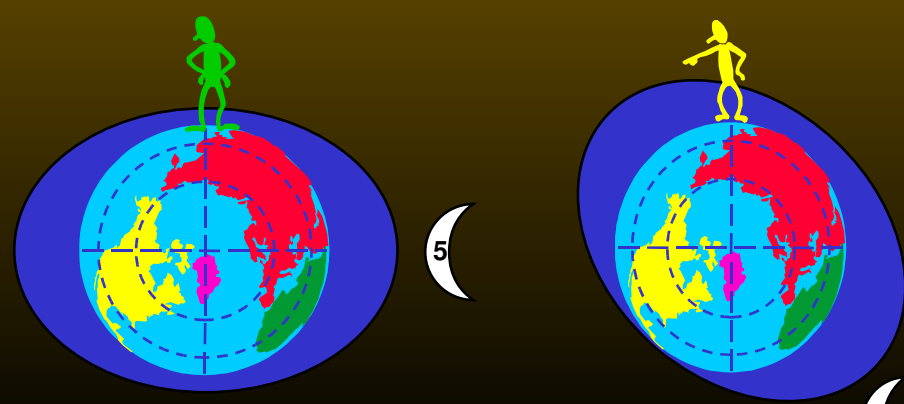
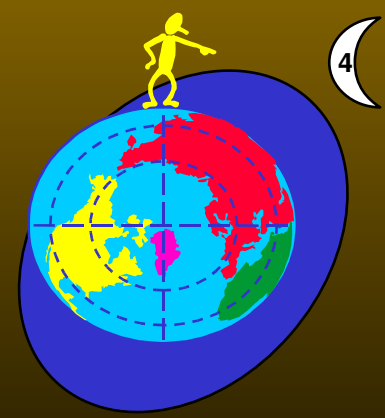


Glub-
glub...

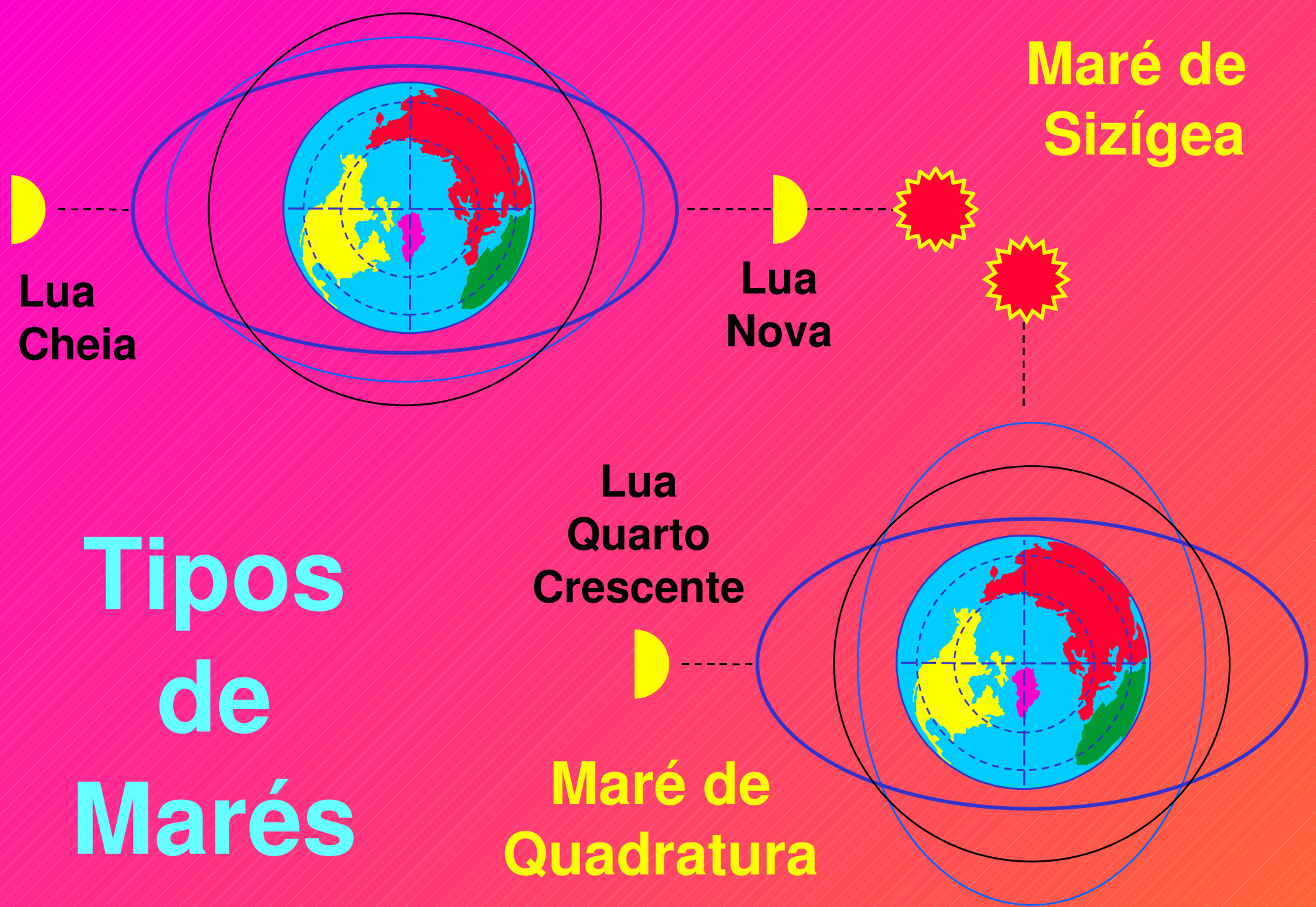


Glub-
glub...

Seqüência da Maré

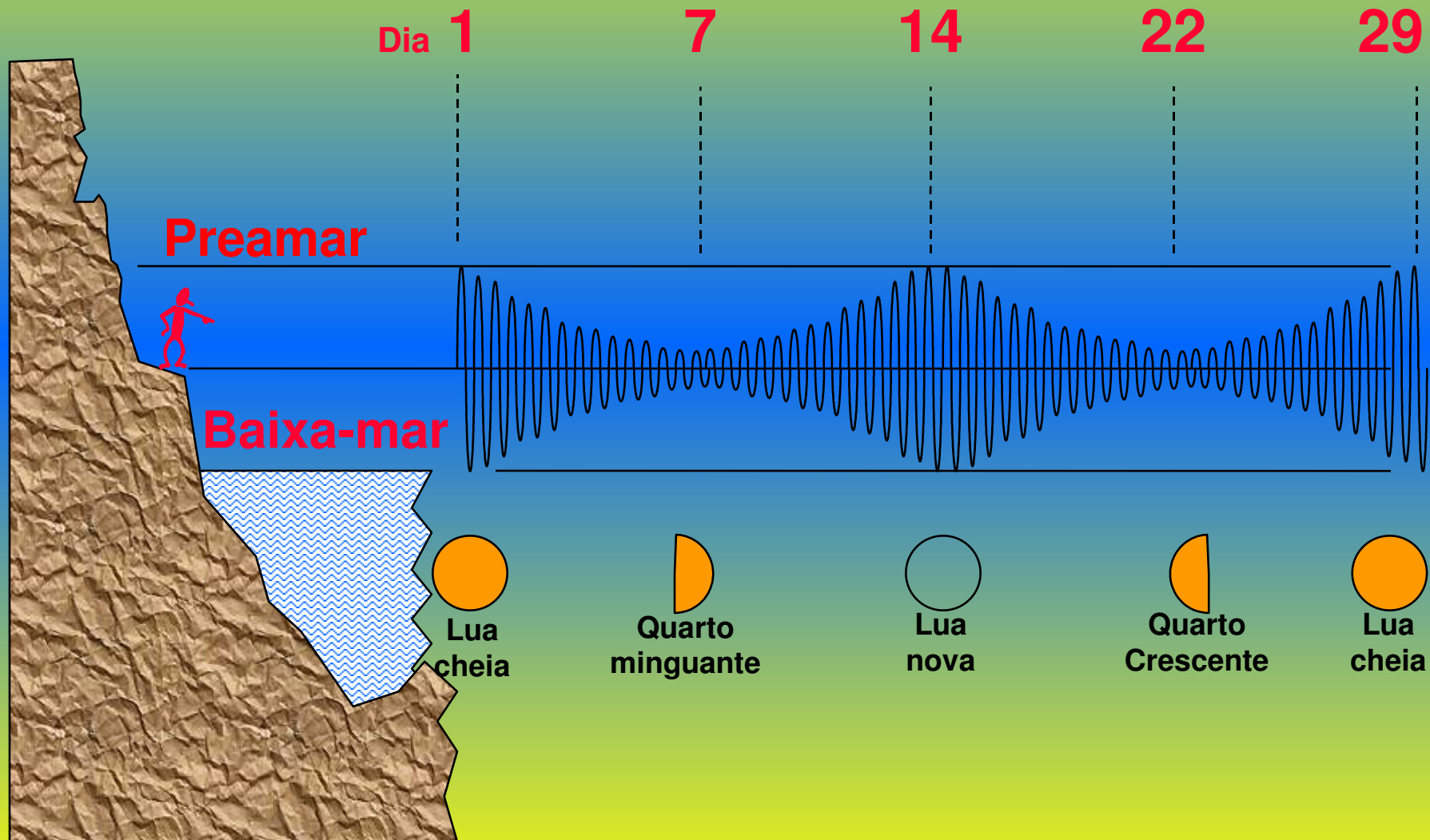


Tipos de Marés



Maré de Sizígeia: dias 1 e 14

Maré de Quadratura: dias 7 e 22



Amplitude da maré





Fim