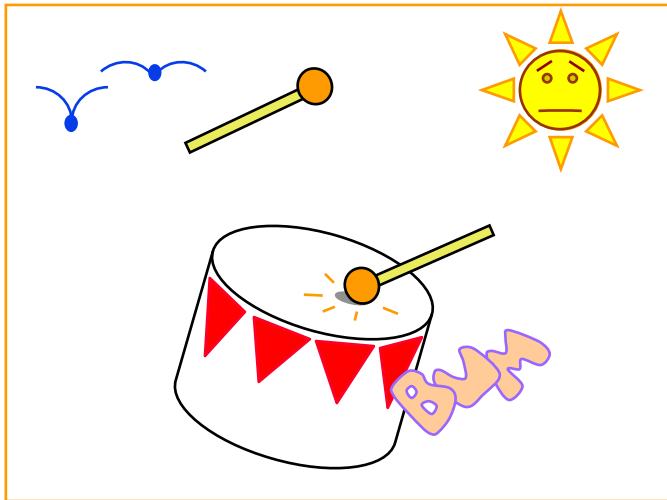
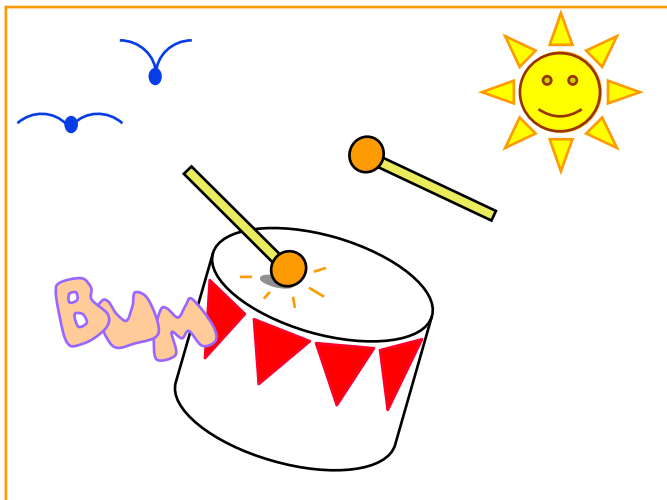


O PRINCÍPIO DA ANIMAÇÃO

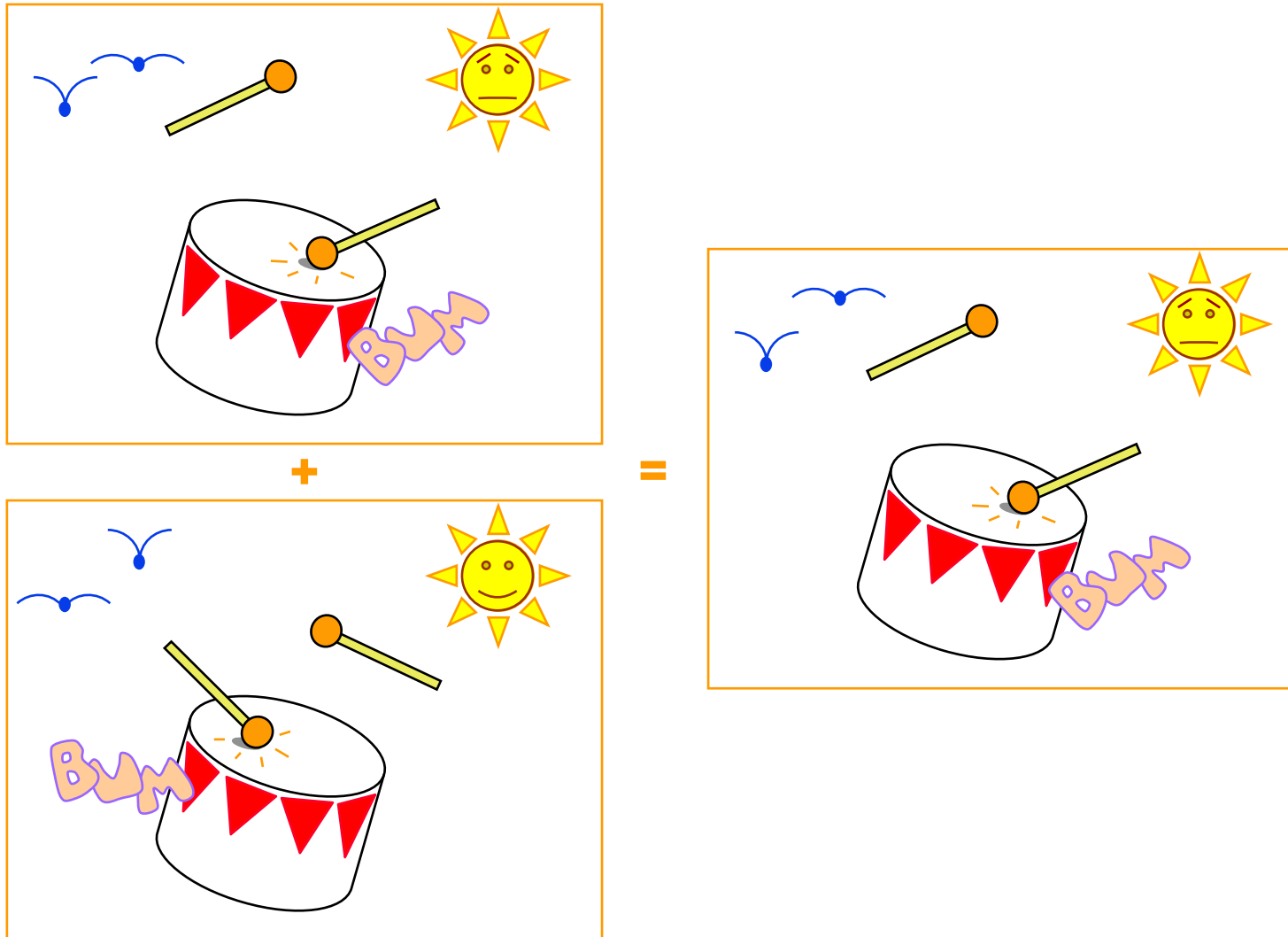


+

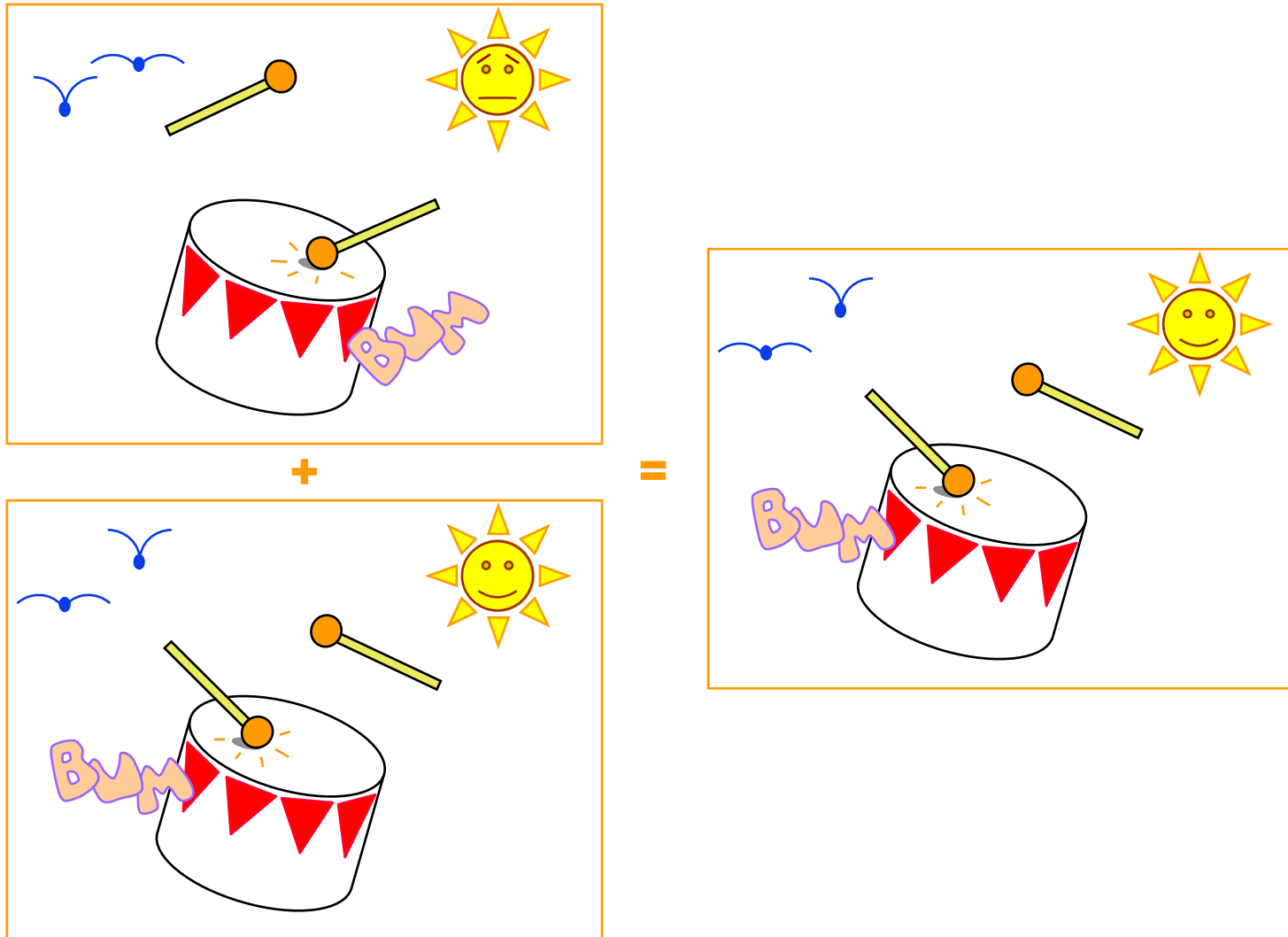
=

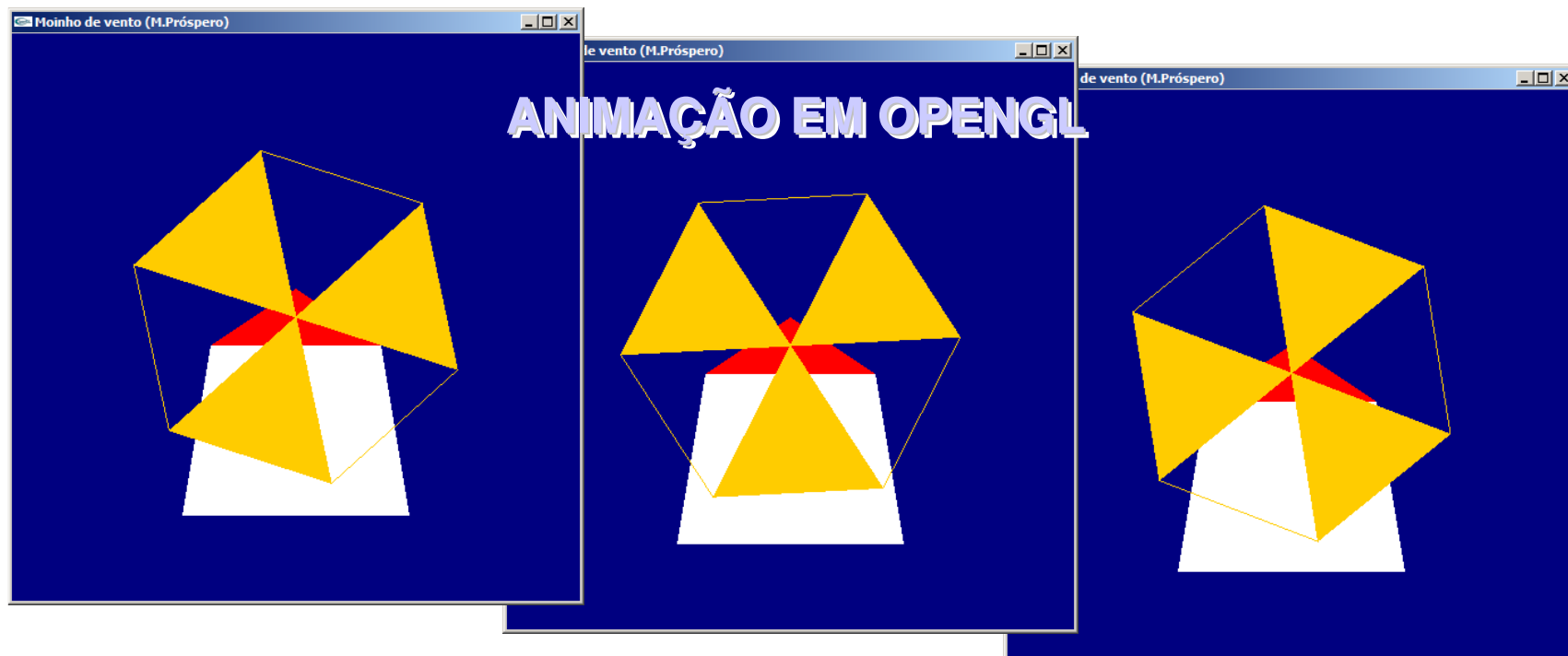


O PRINCÍPIO DA ANIMAÇÃO



O PRINCÍPIO DA ANIMAÇÃO





Num programa em JOGL, é necessário executar o método `display()` em ciclo, tendo-se o cuidado de ir alterando o valor de cada parâmetro da animação:

```
...  
    glRotated(alfa, 0.0, 0.0, 1.0);  
...  
    alfa += 1.0; // valor para a próxima chamada de display()  
    if (alfa > 360.0) alfa -= 360.0;  
...
```

ANIMATION IN JOGL

com.sun.opengl.util.Animator

com.sun.opengl.util.FPSAnimator

An Animator (or FPSAnimator) can be attached to one or more GLAutoDrawables to drive their `display()` methods in a loop.

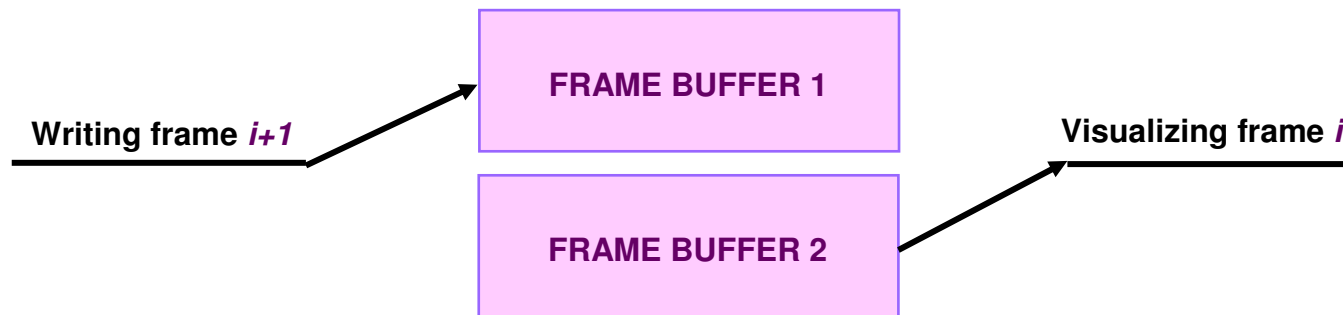
Frames Per Second, if supported by the hardware

```
...  
    final FPSAnimator animator = new FPSAnimator(canvas, 60);  
    animator.start(); // Start executing display() in a loop  
...  
    animator.stop(); // Stop animation  
...
```

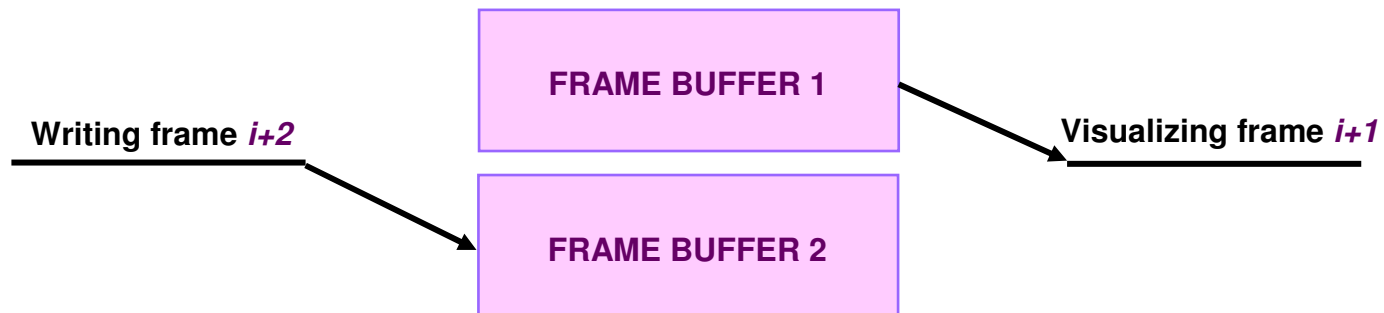
DOUBLE BUFFERING

(Frame Buffer duplo, usado em animação)

Instant t :



Instant $t+1$:



Default in JOGL: Double Buffer "on"

`setSwapInterval(1)` causes the wait for the next vertical refresh until swapping buffers