```
1  public class AtomicSRSWRegister<T> implements Register<T> {
2    ThreadLocal<Long> lastStamp;
3    ThreadLocal<StampedValue<T>> lastRead;
4    StampedValue<T> r_value;            // regular SRSW timestamp-value pair
5    public AtomicSRSWRegister(T init) {
6      r_value = new StampedValue<T>(init);
7      lastStamp = new ThreadLocal<Long>() {
8        protected Long initialValue() { return 0; };
9      };
10     lastRead = new ThreadLocal<StampedValue<T>>() {
11       protected StampedValue<T> initialValue() { return r_value; };
12     };
13   }
14   public T read() {
15     StampedValue<T> value = r_value;
16     StampedValue<T> last = lastRead.get();
17     StampedValue<T> result = StampedValue.max(value, last);
18     lastRead.set(result);
19     return result.value;
20   }
21   public void write(T v) {
22     long stamp = lastStamp.get() + 1;
23     r_value = new StampedValue(stamp, v);
24     lastStamp.set(stamp);
25   }
26 }
```

FIGURE 4.11 The AtomicSRSWRegister class: an atomic SRSW register constructed from a regular SRSW register.