

## The Sundial – How to Tell the Time

- Carefully read the time shown by the shadow of the gnomon.
- Then add one hour only when daylight saving time is in effect in the summer.
- Add or remove the minutes indicated by the equation of time.
- With these simple steps, you can find the right time with an accurate clock
- The bright circle projected onto the dial from the hole at the end of the gnomon exactly overlaps and runs along the green line during the spring equinox (March 21) and autumn equinox (September 23). The dial also shows the hyperboles indicating when the Sun is entering the signs of the zodiac.
- When the gnomon's shadow overlaps the vertical line, it is exactly 12 o' clock, i.e. the true solar noon at that location.

### Equation of time:

- The Sun's apparent movement around the Earth describes a daily elliptical distance that varies in size when projected on the celestial equator, and which over the course of the year can be seen in the shape of a double sinusoid.
- According to the second law of Kepler, the Earth moves along its orbit with a variable speed that is faster when closest to the Sun.
- Day after day, the sum of the two variables gives rise to the curve of the equation of time shown on the sundial.

Conceived and designed by Luigi Ferioli, Elia Cozzi and Enzo Pfister, it was made possible thanks to the contribution of the Management of Ferrovia Monte Generoso.