



Eötvös Loránd

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1EÖTVÖS

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United Nations
Educational, Scientific and
Cultural Organization

Egyesült Nemzetek
Nevelésügyi, Tudományos és
Kulturális Szervezete

100th anniversary of Roland Eötvös
(1848-1919), physicist, geophysicist,
and innovator of higher education
Commemorated in association with UNESCO

Eötvös Loránd (1848-1919) fizikus,
geofizikus és a felsőoktatás
megújítójának 100. évfordulója
Az UNESCO-val közösen emlékeztetve

Eötvös-the Hungarian Polymath



- Public man
- Scientist
- Inventor
- Mountaineer
- Photographer
- Horse breeder

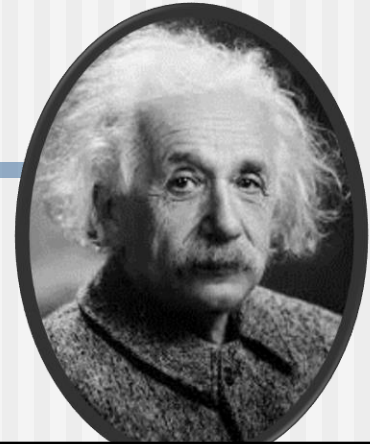
The Homo Publicus

- President of the Hungarian Academy of Sciences (1889–1905)
- Minister of Religion and Public Education (1894–1895)
- Rector of the University of Budapest (1891–1892)
- Founder of scientific and sport organisations
- Supporter of young talents.

The Scientist

Fields of research

- Capillarity
- Gravity
- Pure and Applied Geophysics
- Geodesy and geomagnetics

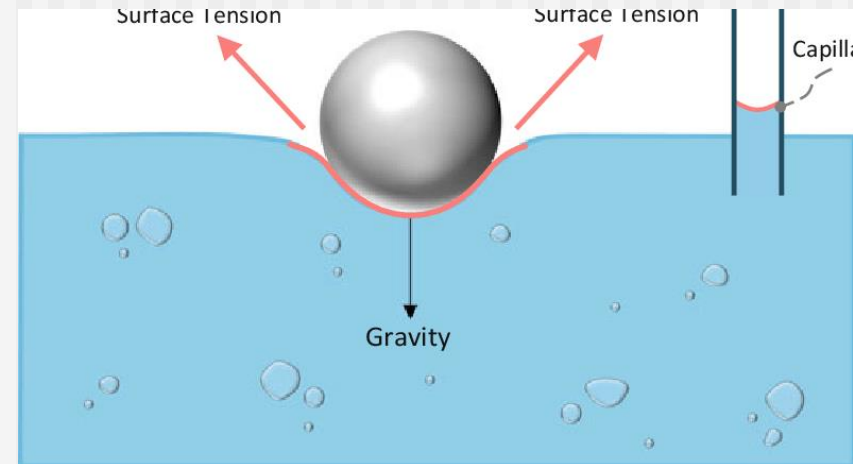


Albert Einstein

„Prince of Physics“

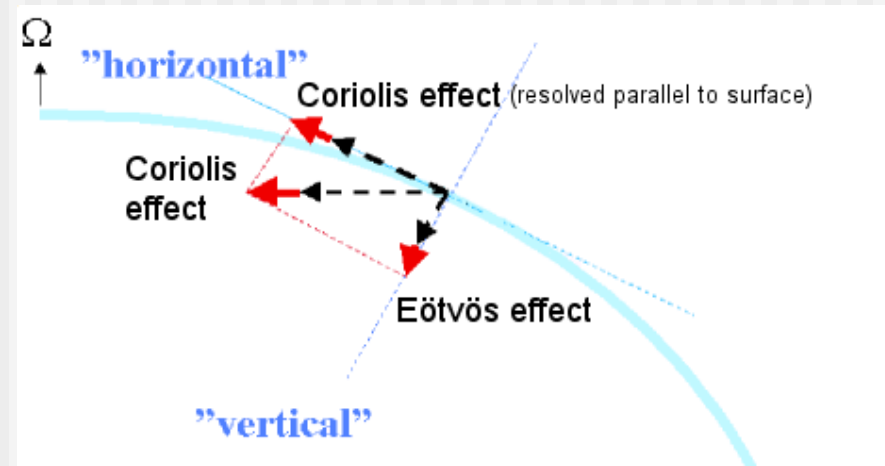
Capillary studies

- Observing changes in the geometry of a liquid's surface and determining surface tension
- Statement: surface tension is related to the molar weight of a liquid.
- **Eötvös law:** relationship between temperature and the surface tension of a liquid.



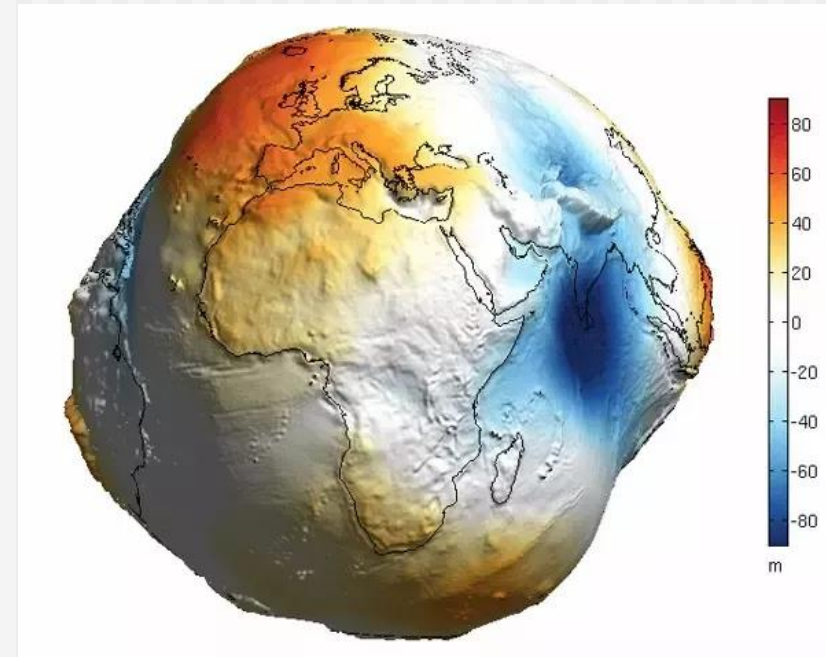
Gravity studies

- He dynamically determined the gravitation constant
- **Eötvös experiment:** Experimentally proved the proportionality of inertial and gravitational mass
- Experiments on shielding gravity
- **Eötvös effect:** the change in gravitational force caused by the change in centrifugal acceleration resulting from eastbound or westbound velocity.



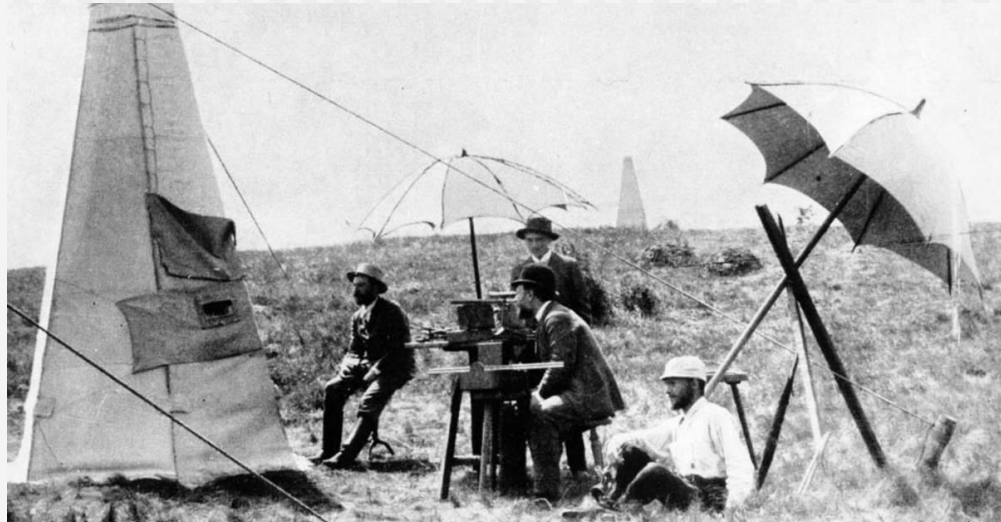
Geodesy and Geomagnetetics

- Relationship for the differential curvature function of gravity acceleration
- Local determination of equipotential surfaces
- **Eötvös Unit**: unit of gradient of gravity acceleration,



Geophysics

- Methodolgy for field gravity measurement and data processing
- Basics of HC investigation



Inventor

- Methodolgy development
- Equipments for gravity measurement
 - Torsion balance
- Equipments for physical experiments



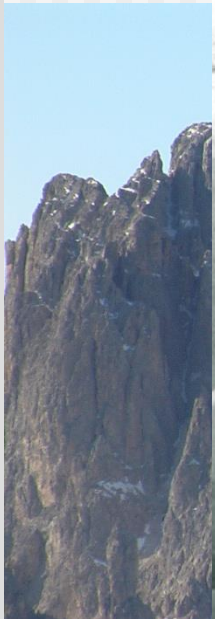
Hobby: photographer

- He documented himself his activities on photos



Hobby: Mountaineer

- Climbed 110 peaks
- More
clime



Eötvös Peak: 2837 m

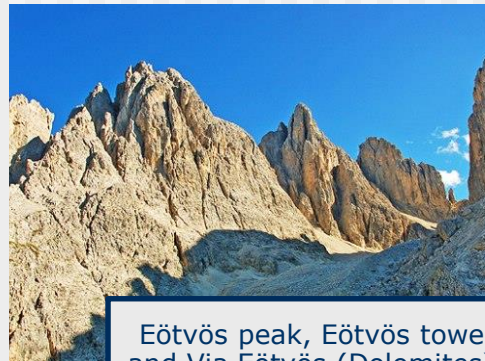
Hobby: Horse breeder



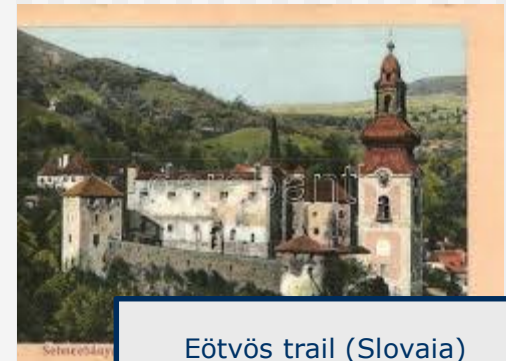
Nature Forms Named after Eötvös



Lorandite (mineral of tellurium)



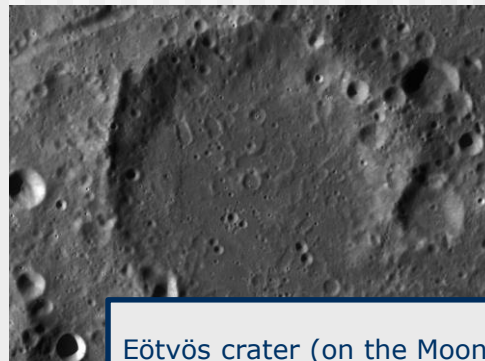
Eötvös peak, Eötvös tower
and Via Eötvös (Dolomites);



Eötvös trail (Slovakia)



Eötvös caves (Hungary)



Eötvös crater (on the Moon);



12301 Eötvös (asteroid).

Scientific Concepts & Terms Named after Eötvös

- Capillarity
 - Eötvös rule, Eötvös constant, Eötvös number;
- Gravity
 - Eötvös experiment, Eötvös parameter
 - Eötvös effect, Eötvös correction
- Equipment
 - Eötvös torsion balance;
- Geodesy
 - Eötvös tensor
- Geophysics
 - Eötvös law of magnetism
- The physical unit 1 eötvös
 - $1\text{E} = 10^{-9} \text{ s}^{-2}$



THANK YOU

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