

Biogeography. Lecture 4

Alexey Shipunov

Minot State University

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Outline

Basics of physical geography

Basics of geodesy

Basics of climatology



Basics of physical geography

Basics of geodesy

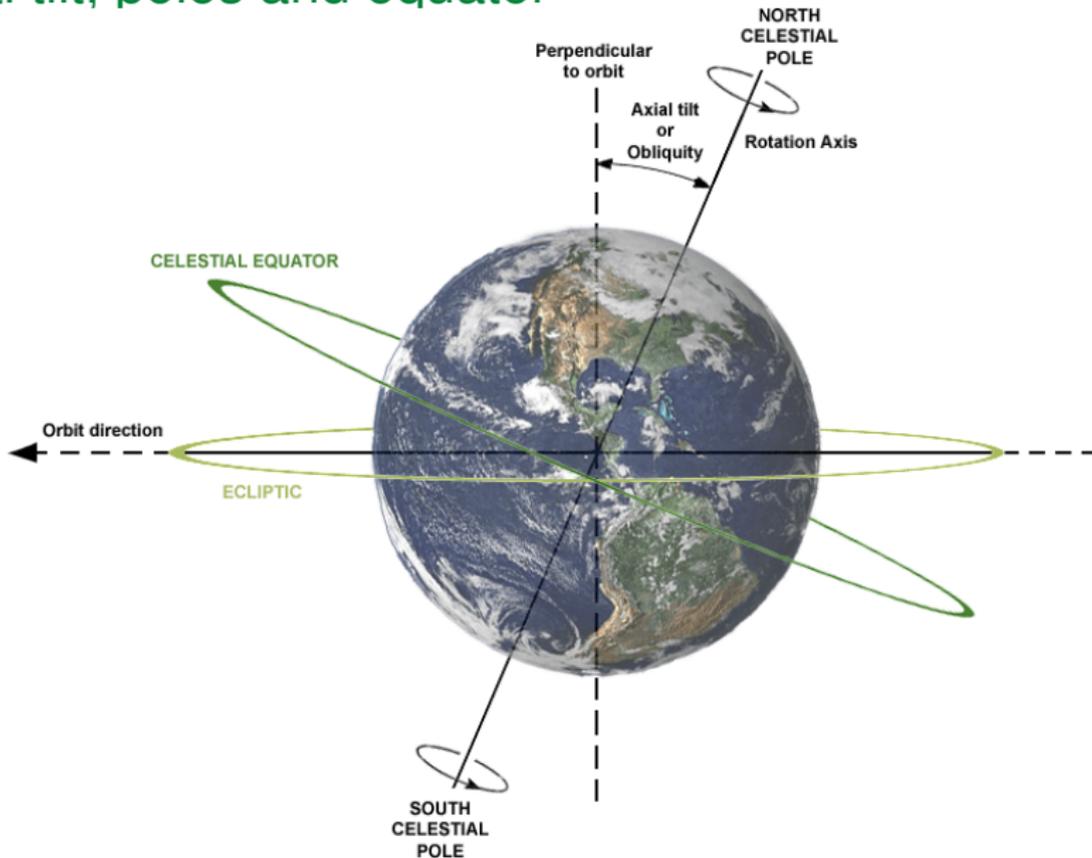


Basics of geodesy

- ▶ Axial tilt
- ▶ Equator
- ▶ Poles (and magnetic poles)
- ▶ Tropics
- ▶ Arctic circles
- ▶ Longitude and latitude, prime meridian and international date line
- ▶ Time zones and UTC
- ▶ Hemispheres



Axial tilt, poles and equator



180° Meridian, Taveuni, Fiji



Basics of physical geography

Basics of climatology

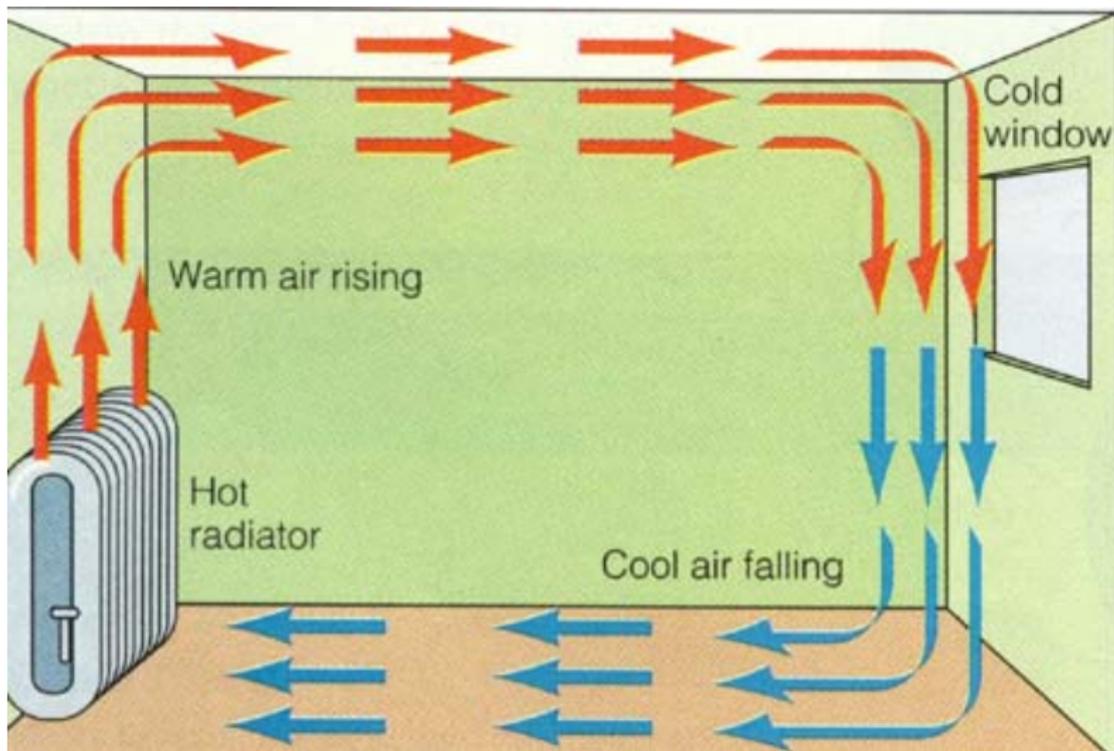


Atmospheric circulation

- ▶ High pressure and low pressure zones, cyclones and anticyclones
- ▶ Circulation cells
- ▶ Trade winds and westerlies
- ▶ Horse latitudes and zone of convergence



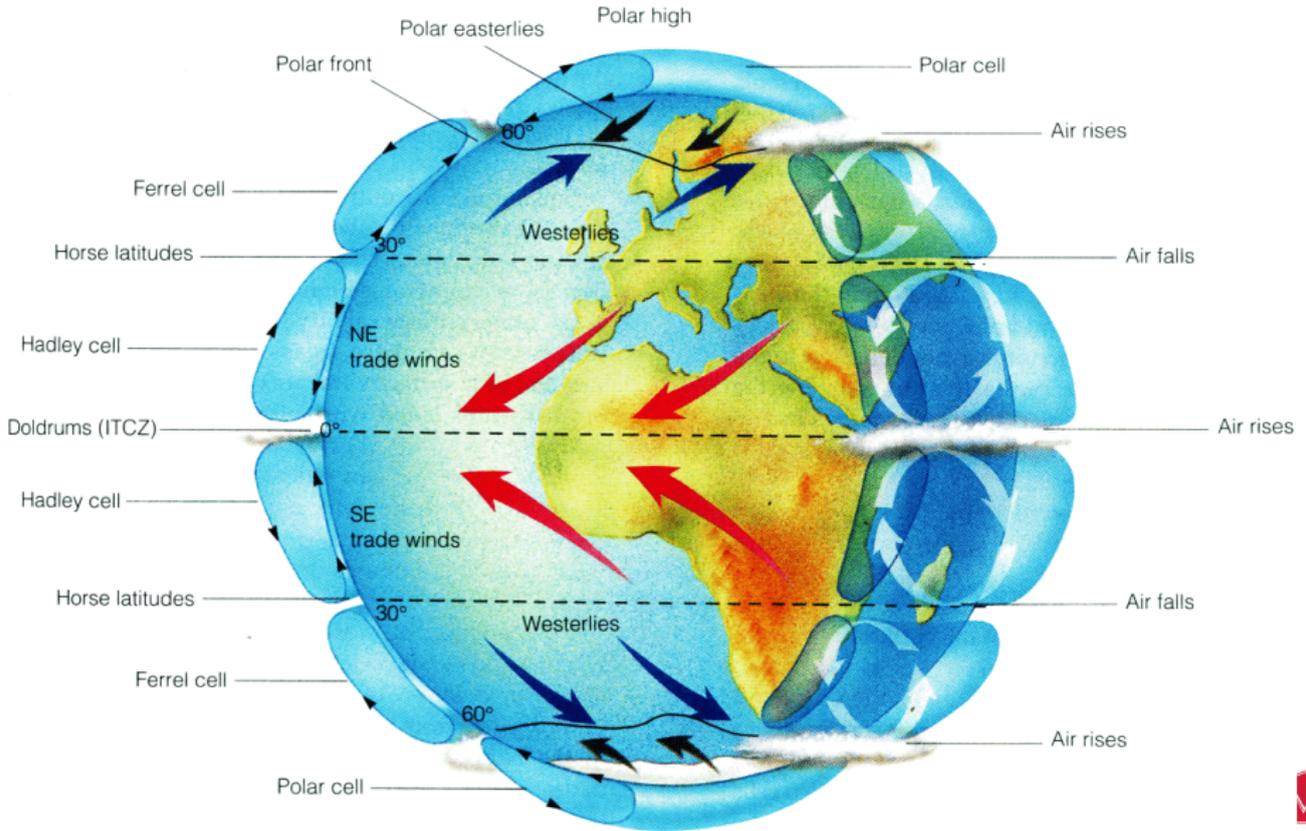
Circulation in a room



Idealized atmospheric circulation on Earth



Idealized atmospheric circulation on Earth (with labels)



Summary

- ▶ Temperature seasons: axial, not orbital effects
- ▶ Tropical wet seasons (monsoons) are related with temperature seasons and circulation



For Further Reading



A. Shipunov.

Biogeography [Electronic resource].

2014—onwards.

Mode of access:

http://ashipunov.info/shipunov/school/biol_330



Major circles of latitude.

http://en.wikipedia.org/wiki/Circle_of_latitude



Atmospheric circulation.

[http:](http://en.wikipedia.org/wiki/Atmospheric_circulation)

[//en.wikipedia.org/wiki/Atmospheric_circulation](http://en.wikipedia.org/wiki/Atmospheric_circulation)

