



### Übersicht: Kartenprojektionen

Josef Strobl

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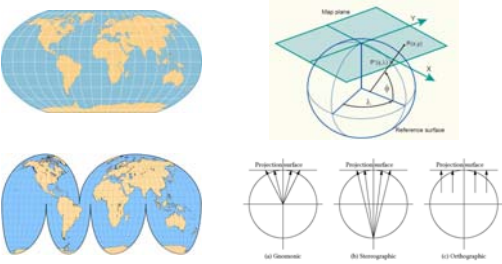
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### Typen von Projektionen

Mathematische vs ‚echte‘ Projektionen



(a) Gnomonisch (b) Stereographisch (c) Orthographisch

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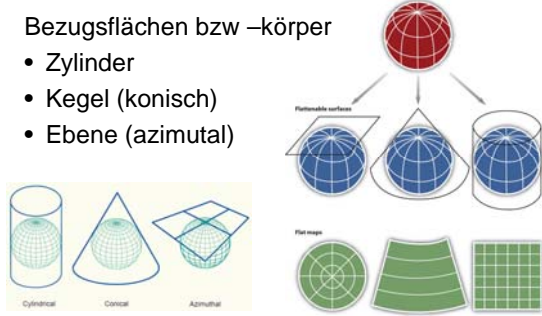
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### Typen von Projektionen

Bezugsflächen bzw -körper

- Zylinder
- Kegel (konisch)
- Ebene (azimutal)



Cylindrical Conical Azimuthal

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### Orientierung der Bezugsflächen

- Normalständig
- Transversal
- Oblique

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### berührende vs schneidende Bezugsflächen

Tangent and Secant Cases for Different Projection Classes

©The COMET Program

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### Eigenschaften von Projektionen

- Flächentreu (equal area)
- Längentreu (equidistant)
- Winkeltreu (konform, conformal)
- Richtungstreue

inkompatibel

evtl nur in Teilgebieten

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### Tissot'sche Indikatrix

„Verzerrungsellipsen“, mit denen die Eigenschaften kartographischer Projektionen in unterschiedlichen Bereichen des Kartenentwurfs beschrieben werden:

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### z.B. Mercator Projektion

- 1569 von Gerardus Mercator vorgestellt
- Zylinderprojektion
- Standard für Navigation: konstante Richtungswinkel (vs. Meridianen)

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WHAT YOUR FAVORITE MAP PROJECTION SAYS ABOUT YOU

#### MERCATOR

YOU'RE NOT REALLY INTO PPIPS.

#### VAN DER GRANTEN

YOU'RE NOT A COPYRIGHTED PERSON. YOU LOVE THE MERCATOR PROJECTION. YOU JUST WISH IT WERE IT SQUARE. THE EARTH IS NOT A SQUARE, IT'S A CIRCLE. YOU LIKE CIRCLES. YOU'VE GONNA BE A GOOD DIRT.

#### WINKEL-TRIPPEL

NATIONAL GEOGRAPHIC ADOPTED THE WINKEL-TRIPPEL IN 1998, BUT YOU'VE BEEN A HIT FOR LONG LONG BEING THAT GOT THROWN UP. YOU'RE WORRIED ITS BEING PLUNKED OUT, AND ARE THINKING OF OUTDING TO THE KNOWLEDGE. YOU ONCE LEFT A PAPER IN DISGUISE WHEN A GUEST SAID YOU WERE SPEAKING WITH THEM. YOUR FAVORITE PAPER GENRE IS "ZOO!"

#### ROBINSON

YOU HATE A COMFORTABLE PAIR OF RUNNING SHOES THAT YOU WORE EVERYWHERE. YOU LIKE CIRCLES AND SQUIGGLY THE SQUARES. YOU THINK THE ROBINSON IS THE BEST-LOOKING PROJECTION. HANDS DOWN.

#### DIYAKTION

YOU LIKE SPAC ASPHALT, XPL, AND SHEDS WITH TREES. YOU THINK THE SQUARE GOT A BAD RNF. YOU CAN 3D GOOGLE, WHICH YOU USE TO VIEW HOTTING PROBLEMS OF BETTER 3D GOOGLE. YOU TYPE IN DYNAMIC.

#### HOB-DYER

YOU WANT TO AVOID CULTURAL IMPERIALISM, BUT YOU'VE HENED BIRD THINGS ABOUT GAW-PETERS. YOU'RE CONFUSING-MERSE AND BUD DRIVING. YOU USE A REGULAR-INDEXED SET OF GAW-NATIONAL. FRIENDS AND THINK TUFF WHAT THE WORLD NEEDS IS A REVOLUTION IN CHOCOCOCOCOC.

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