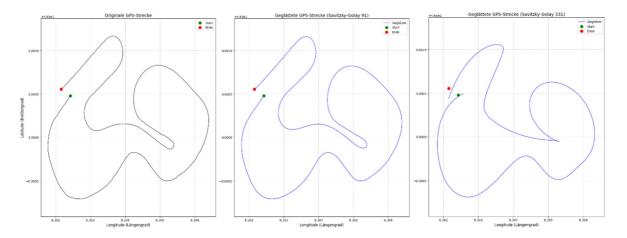
## 1 Plotten Strecke

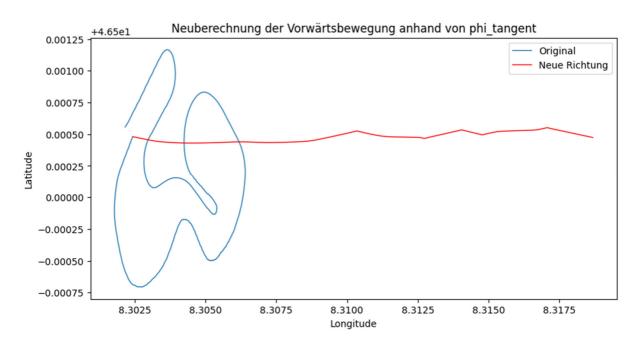


## 2 Gesmoothte Strecke jeder Position den Winkel bestimmen

$$dx_i = ext{longitude\_smooth}_{i+1} - ext{longitude\_smooth}_i$$
 
$$dy_i = ext{latitude\_smooth}_{i+1} - ext{latitude\_smooth}_i$$
 
$$\phi_i = ext{arctan}\left(\frac{dy_i}{dx_i}\right)$$

## 3 Orginalstrecke mit Winkel begradigen (euklidische Distanz)

$$egin{aligned} dx_i &= ext{longitude}_i - ext{longitude}_{i-1} \ dy_i &= ext{latitude}_i - ext{latitude}_{i-1} \end{aligned} \qquad egin{aligned} dx_{ ext{new},i} &= ext{distance}_i \cdot \cos(\phi_{ ext{rad},i}) \ dy_{ ext{new},i} &= ext{distance}_i \cdot \sin(\phi_{ ext{rad},i}) \end{aligned}$$



## 4 Savitzky\_Golay (Neu)

