

Vilhelm Friman Koren Bjercknes

 [Vilhelm_Bjercknes](#) (1862-1951)

Norský fyzik. Jeden ze zakladatelů moderní meteorologie, čili předpovědi počasí, a fyzikální hydrodynamiky.

Fields of force (Silové pole) - 1906

- [Knina](#) (pdf +

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Popisuje proudění tekutin a jejich porovnání s elektromagnetismem včetně doprovodných ověřovacích pokusů.

Cituje Maxwella, který si byl vědom neúplnosti popisu elektromagnetismu:

It must be carefully born in mind that we have only made one step in the theory of the action of the medium. We have supposed it to be in a state of stress but have not in any way accounted for this stress, or explained how it is maintained ...

I have not been able to make the next step, namely, to account by mechanical considerations for these stresses in the dielectric.

Přitažlivost a odpudivost dvou pulzujících/kmitajících těles

Between bodies pulsating in the same phase there is an apparent attraction; between bodies pulsating in the opposite phase there is an apparent repulsion, the force being proportional to the product of the two intensities of pulsation, and proportional to the inverse square of the distance.

Pulsating bodies act upon each other as if they were electrically charged particles or magnetic poles, but with the difference that charges or poles of the same sign attract, and charges or poles of opposite sign repel each other.

... the motion is not a simple progressive one, but a dissymmetric vibratory motion, in which the oscillations in the one direction always exceed a little the oscillations in the other, so that the result is the observed progressive motion.

An oscillating body will act upon a pulsating body as an elementary magnet upon a magnetic pole, but with the law of poles reversed.

An oscilating body in the hydrodynamic field will be subject to the action of a force similar to that acting upon an elementary magnet in the magnetic field, the only difference being the difference in the signs of the forces which follows from the opposite pole-law.

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