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PRÆCEPTUM 44.

Alia via. Quære ipsius puncti Eclipticæ orientis Declinationem ex Tabula, eiq; junges angulum orientis; compositi Log-o adde Log-um declinationis: à summa rejice Log-um altitudinis Equatoris, restabit Log-um differentie ascensionalis: quæ de puncti Septentrionalis Asc: recta auferenda est; ad meridionalem addenda, ut constituatur Asc: obliqua quæsita.

Ut si sit punctum Eclipticæ. $0^{\circ}.7'.12''$. χ . Alt: Poli $38^{\circ}.0'$. Eius declinatio est $11^{\circ}.28'.10''$. Angulus $69^{\circ}.19'.15''$, sed cum arcu sequenti sinistro, ergo cum antecedenti $110^{\circ}.40'.45''$. Angulus orientis $0^{\circ}.7'.12''$ χ est $30^{\circ}.24'$ ex Tabula. Summa utriusq; $141^{\circ}.4'.45''$ habet Log-um 46482, cui adde Log-um Declinationis 161522: fit summa 208004. Hinc aufer alt: eq: 52. Log-um 23824; restat 184180, Log-us arcus $9^{\circ}.7'.20''$. Hæc est ergo diff: Asc: addenda. Est autem A. R. o. χ $332^{\circ}.13'.9''$. Ergo Asc: obliqua erit $341^{\circ}.20'.29''$.

Consensus explorandi causa, quærat eadem Diff: Ascensionalis per Mesologarithmos.

Declinationis Mesolog. + 159506

Altitudinis AEquat. Mesolog. - 24682

Aufer cossice, restat + 184188

Logarithmus idem ferè qui prius.

SED ET IPSUM PUNCTUM ECLIPTICÆ ORIENS, PER ANGULUM ejus cum Horizonte datum vel sumptum, & per Asc: obliquam datam inquiri potest.

PRÆCEPTUM 45.

PRO Asc: obliqua data, sume Asc: rectam Medii Cæli, & quære punctum Eclipticæ, quod cum eâ cælum mediat, ejusque Declinationem; quæ si septentrionalis, addatur ad Alt. Equatoris: sin meridiana, auferatur. A residui vel compositi Logarithmo aufer Logarithmum anguli orientis; restabit Logarithmus arcus Eclipticæ, ortivi, si punctum cælum medians erat in descendenti semicirculo; occidui, si in ascendente. Ille igitur additus ad punctum cælum medians, pertingit ad punctum oriens; iste ablati, ad occidens. Si ablatio fieri non potest, non respondet datus ang: Orientis, datæ Asc: Obliquæ.

Ut Asc: obliqua sit $341^{\circ}.20'.29''$, erit Asc: recta M.C. $251^{\circ}.20'.29''$, cum qua cælum mediat $12^{\circ}.47'.49''$. χ ex descendenti semicirculo; cujus Declinatio meridiana $22^{\circ}.24'.49''$. Hæc ablata ab Alt. AEquat. 52° , relinquit $29^{\circ}.37'.11''$. Ab hujus arcus Logarithmo 70576 aufer Anguli Orientis dati $30^{\circ}.24'$ (modo data omnia invicem respondeant) Logarithmum 68115, restabit 2461 Logarithmus arcus jam ortivi $77^{\circ}.20'.26''$. Hunc igitur adde ad $12^{\circ}.47'.49''$. χ , prodit oriens punctum Eclipticæ $0^{\circ}.8'.19''$ χ sat precise. Nam angulus Orientis $30^{\circ}.24'.8''$, jam efficiet $0^{\circ}.7'.12''$ χ .

Hoc pacto si ponas notum angulum Orientis, & opereris, siquidem prodit punctum habens hunc angulum, fælix fuit positio: sin aliter, puncti prodeuntis angulus ponitur, & repetitur operatio: quæ ratio, quamvis imperfecta ob Tabulæ brevitatem, in loco non erit inutilis.

TANDEM DOCEBO, PER SOLOS LOGARITHMOS, SINEULLIS Aliis Tab. computare & angulum orientis, & unâ ipsum punctum oriens, ex datâ Asc: obliquâ universaliter & exactè.

PRIMUM observa casus, alterutrum ex punctis Equinoctialibus, quod est supra Horizontem, in quo cæli Quadrante sit. Nam si id est in orientali; gradus oriens est quærendus, seu arcus ab Equinoctio sublimi ad ortum usque: sin in occiduo; gradus occidens quæritur, seu arcus Eclipticæ à puncto occidente usque ad æquinoctium sublime. Utroque casu arcus Equatoris respondens adhibetur. Hujus enim Logarithmus additus Logarithmo alt: æquatoris, constituit Logarithmum altitudinis illius æquinoctialis puncti. Et hujus Antilogarithmus ablati ab Antilogarithmo Equatoris, relinquit Logarithmum anguli inter Equatorè & Verticalem, qui per æquinoctium ducitur. Huic angulo Obliquitas Eclipticæ additur, si 0° est ad ortum, vel 0° ad occasum; auferitur, si 0° est ad ortum vel 0° ad occasum: ita constitutus erit angulus verticalis cum Ecliptica. Hujus Log-us additus Antilogarithmo altitudinis puncti Equinoctialis, jam elicit, dat Antilogarithmum Anguli orientis; qui unâ cum ejusdem Logarithmo, utilis est ad Parallaxes. Hic verò Log-us anguli orientis, ablati à Logarithmo Altitudinis puncti æquinoctialis, relinquit Logarithmum lateris Eclipticæ requisiti, quod simul cum angulo Eclipticæ & verticalis, prius adhibito, vel excedit Quadrantem vel ab eo deficit. Prodest autem adiuvescere certis Typis, quorum unum tradam in exemplo.

Sit Asc: obliqua $346.48'$. Ergo 0° est supra Horizontem, & ad occasum; quærendumq; est latus Eclipticæ ab occasu usque in 0° . Ei verò respondet latus Equatoris $13^{\circ}.12'$, quantum sc: est ab $166.48'$ Descensione obliquâ, ad 180° seu ad 0° .

Latus eq. $13^{\circ}.12'$. A. Lo. 147687. C.

Alt. Eq. 39. 6. B. Log. 46096. D. Ant. 25354. E.

193783. F. Ant. 1049. G.

51.39. I. 24305. H.

23.31. K. Adde, quia 0° est ad occasum

75.10. L. Logar. --- 3385.

Ang. or. 16.56. Log. 123354. O. Ant. 4434. N.

Lat. Ecl. 29 38. Q. 70429. P.

Ergo occidit. 0.22. M, oritur 0.22. X.

Datur A per Asc: obliquam, cum quo excerpitur C. Datur & B, cum quo excerpitur D & E. Iam C & D additi faciunt F. Hic verò per summum arcum dat & G. In canone Neperi non est opus arcu, stat enim G è regione ipsius F. At in his tabulis excerptio utriusq; tam Logarithmi, quam Antilogarithmi non est multo difficilior. Quilibet enim Logarithmus ostendit arcum suum, Quadrante minore in fronte & sinistro margine: & is translatus in calcem & dextrum marginem, ostendit respondentem Antilogarithmum: id fit crebro in eadem apertura libri, aut summum tribus folijs replicatis. Porro sub-

PRÆCEPTUM 46.

Commoditas Canonis Neperiani & Ursiniani.