引 言

自然科学研究，造福了人类，给世界带来了文明和进步。两千多年的自然科学发展史上，记录着先辈科学家们的丰碑伟绩，他们为人类文明做出了卓越贡献。遗憾的是至今在自然科学领域里还遗留着“三大纠纷”，这就是光速纠纷、电磁感应纠纷和时空纠纷。虽然三大纠纷有时激烈，有时淡漠，但百年来，人们无不关注着纠纷问题，无不关注着纠纷问题早日得到解决，期盼着自然科学沿着正确路线揭示更深层次的自然界奥秘。

1 科学家遗留的三大纠纷

•光速纠纷问题。1727年James认为光以恒定速度 c_0 在以太媒质中震荡传播，以太是静止的，而地球是运动的，如果以太不被地球拖曳，那么半年后地球绕日运动适相反，应有一偏转角 θ''。半年后James做了这个观测实验，测得了这个偏转角 θ''，说明以太不被地球拖曳，似乎以太就是绝对空间。1851年Fizeau做流水光速观测实验测得了光速与传播媒质运动有关，实验测得光速被运动媒质(水)拖曳。但是，在1881年，Michelson-Morley认为，光波在静止的以太媒质中振荡传播，其绝对速度 c_0 是恒定的，而干涉仪随地球一起相对于以太媒质以速度 v 运动，相当于煤质(以太)向后方运动，如果光速被 $-v$ 速度的以太拖曳，就可以观测到因波程差而引起的干涉条纹，据此他们用干涉仪测量却得到了零性结果。这几个实验被爱因斯坦认为“相对于以太的运动，有的可测，有的不可测”，从而引发了光速不变假设。但仔细想，这种假设掩盖了光速的本质问题，光速是绝对速度或是相对速度？光速是矢量或是标量？光运动服从伽利略相对性原理或是服从洛仑兹变换？光速是不变的或是可叠加的呢？

•电磁感应纠纷问题。1832年法拉第认为磁铁与导体之间的感应是在导体中产生了感生电动势 dU，1834年楞茨认为是在导体中产生了感生电流 I。虽然都是导体上的感应，但由于 dU 和 I 出现在欧姆定律的两边，谁是原因谁是结果，犹如当时的鸡蛋与小鸡之哲学问题。1865年麦克斯韦却认为磁铁运动时在以太空间里产生了漩涡电场 $\boldsymbol{E}$，$\boldsymbol{E}$ 的积分可得电动势，$\boldsymbol{E}$ 的微分可得电流，似乎平息了法拉第与楞茨之间的因果关系之哲学争议。但是仔细想来，它与前两家定律的本质差别就更大了，究竟是在导体上产生了感应或者是在以太空间中产生了感应，其物理本质截然不同，因为导体与以太有着本质上的差别。1892年洛仑兹创建了金属电子理论，因此金属电子受洛仑兹磁力而形成感应电流，其本质是力 $\boldsymbol{F}$ 而不是场 $\boldsymbol{E}$。1897年J·J汤姆逊发现电子，证实了洛仑兹的电子论的正确性。但是20世纪爱因斯坦提出了相对论电磁学，运动者看见了电场 $\boldsymbol{E}$ 和磁场 $\boldsymbol{B}$，似乎爱因斯坦不承认洛仑兹磁力。到目前为止，同样的磁铁与线圈之间的电磁感应的本质问题仍然没有统一起来，五家观点不相融，而教科书只好原本照抄，孤立地讲授各自章节，无人讲授它们之间的本质差别。其实，无论线圈运动或是磁铁运动，只要磁场与导体存在相对运动，则金属电子必然切割磁力线，即，“线圈静止而磁铁向左运动”与“磁铁静止而线圈向右运动”这两种事件是等价的，都属于金属电子与磁力线之间的切割。因此电磁感应的物理本质可统一到洛仑兹磁力上面来。当我

们全面思考时，就会发现，这到底谁是本质，谁是现象？谁是原因，谁是结果？甚至谁是真理，谁是假象呢？

•时空纠纷问题。1905年，爱因斯坦发表相对论强调，“谈论绝对空间是没有意义的，地球自转引起力学上的差别是微小的，按照麦克斯韦电动力学，当磁铁运动时在空间产生了感应电场，于是线圈中有了电流；而当线圈运动时在空间没有产生感应电场，可是线圈中照样有电流，可见空间本不该对称(号称相对性原理)。L ；James实验表明相对于以太的运动可测，而Michelson-Morley实验表明相对于以太的运动不可测，我们可以假设光速不变(号称光速不变原理)L ”。他以此为依据，利用洛仑兹的纯数学变换式，推导了他的侠义相对论。但侠义相对论所暴露出来的问题越来越多，越来越明显，似乎空间就是以太，以太的弯曲就是空间的弯曲。然而无数科学家耗资巨大去证明以太，却至今一无所获。尤其是相对论的时间可以让死人复活，但作为唯物主义者谁也不相信现在的他就是前世的她。上世纪80年代初许多大学生质疑相对论，90年代中国武汉测绘学院、西安微电子技术研究所的学者，燕山大学李子丰教授、海军某部黄德民先生等一大批有志人士，追求真理，撰书立说，用唯物主义驳斥相对论，并尖锐的指出“相对论造成的恶果是：使人们步入歧途，阻碍物理学发展”，中国一大批有志人士成立了一些反相对论的网站和“反相联谊会”，还介绍了许多国内外著名科学家反对相对论的情况。著名理论物理学家卢鹤绂院士冲破重重阻力，给世界发出“向爱因斯坦挑战”的檄文。原中国国防科工委主任、中国工程院院长、两院院士宋健呼唤青年科学家敢于创新，质疑相对论(引自《科技信息》)。中国国家科学技术部万钢部长了解到李子丰教授用唯物主义反对相对论的情况后托人给予勉励(引自《科技日报》)。国外科学家反对相对论的人数就更多了，有洛仑兹、彭加勒、卢瑟福、戴维斯、Michelson-Morley实验的创始人迈克逊，等等。总之，相对论不仅没有解决上述两大纠纷问题，反而带来第三大纠纷问题。时间是一维流逝的或是可以停止的？空间是各向同性的或是可以压缩的？

当我们全面考察科学史时，不难发现侠义相对论依据了电磁感纠纷中的麦克斯维旋度场方程和光速纠纷中的迈克逊-莫雷实验之零性结果。换句话说，这三大纠纷问题绞在同一条路线上，十分错综复杂。所以，在物理概念和物理本质没搞清楚之前，盲目的做实验，或盲目的猜测天体物理现象里的奇迹，是无法解决三大纠纷问题的。他把本来属于物理内涵上的一些现象却大势使用洛仑兹假设的计算方式去解释，试图用数学假设去认识事物的物理属性。从假设到变换，全是纯数学变换，越走越远。他用变换出来的“速度之和”(速度变换公式)去解释Fizeau实验、用变换出来的“周期=光源运动时间+光波传输时间之相对论多普勒效应”去解释James实验、用变换出来的“运动者看见电磁场”去解释电磁感应，等等。当我们仔细研究他的“解释”就会发现，那种用纯数学变换出来的“计算式”并不具有真实的物理意义，仅仅是计算上的一种数字凑数而已，难以服人，甚至自相矛盾，与其说是“解释”倒不如说一种数字拼凑的掩盖，掩盖了事物的真象。正如黄德民先生指出的那样：“相对论扰乱了人们的正常思维，妨碍了人们对事物内在本质的追求”。不少专家学者，甚至是爱因斯坦同年代的科学家，也说相对论是怪怪的。爱因斯坦本来是出于一股钻研精神，他假设光速不变，想用洛仑兹假设去解释Michelson-Morley实验，初步看起来似乎合理，但用他

的速度变换公式去详细计算时，却发现它仍然存在干涉条纹，祥见9.1.2节。

由于爱因斯坦创造了许多“奇迹”，“二战”后，爱因斯坦名扬天下，加之相对论有它的论据、论点和数学工具，就被迷信者神化了，一些未解之谜也被崇拜者戴上了“广义相对论”的头衔，于是相对论上升为神灵。但是，实事求是地讲，我总觉得相对论是错的，因为我真的不相信我这个矮个子是因为长期随地球运动方向睡觉而被长期压缩的结果，更不相信现在的我就是前世的她，于是决心考察相对论的正确性何在。大家知道，考察一个理论正确性的必经之路是要考察其论据、论点和数学推导是否正确。如果相对论的论点与人类工程实践不符，如果相对论的论据与实验不符，如果相对论的数学工具是一种游戏，那么其中任何一条证据都可以判它的“死刑”。我在考察中才发现狭义相对论的论据涉及到光速纠纷和电磁感应纠纷，其论点是相对论运动学、相对论动力学、相对论电磁学、相对论多普勒效应和相对时空观，其数学工具是洛仑兹变换，本书就是对它的论据、论点和数学工具进行全盘否定。诚然，作为年轻有为的爱因斯坦在相对论首文中就联想到了电磁感应问题与旋度场问题以及惯性中的Coriolis力，暗示着理论纠纷的存在，很不简单，我真心佩服他的联想智慧！由相对论造成的三大纠纷：时空纠纷、光速纠纷、电磁感应纠纷，引发出顶级科学家之间呈现两大派别，也正是因为相对论的论述才使得我们想到了物理学中还遗留着一些其他疑难问题：旋度场理论问题及其连带的电磁波属性问题，以及T.Yang干涉实验的物理本质问题。粗略的概括起来讲，两派顶级科学家的理论体系之间遗留的三大主要纠纷问题如下表所示。

A派 牛顿、伽利略和洛仑兹以及作者	B派 爱因斯坦和麦克斯韦以及相对论者
A1、 时间是绝对的且是一位流逝的，时间是自然属性而时钟是度量属性；空间是绝对的且是各项同性的。绝对时空观的依据是牛顿定律和伽利略相对性原理。	**B1、** 时间是相对的且随运动而膨胀，时间和时钟都是运动属性；空间是相对的且随运动而压缩。相对时空观的依据是麦克斯韦的非对称方程组和Michelson-Morley实验的零性结果。
A2、 光的辐射速度 c_0 和观察者的运动速度 v 都是矢量，两个速度矢量服从矢量叠加原理，因此观测到的光速 c 与观察者运动速度 v 遵循伽利略相对性原理 $\boldsymbol{c}=\boldsymbol{c}_0+\boldsymbol{v}$。	**B2、** 忽视光速具有大小和方向这个矢量属性，不深究Michelson-Morley实验之零性结果的真实原因，也不研究光是怎样运动的，只信奉光速不变假设。
A3、 基于金属电子理论、洛仑兹力和安培定律：当磁铁静止而线圈运动时，则运动的金属电子切割了静止的磁力线；当线圈静止而磁铁运动时，则运动的磁力线切割了静止的金属电子。因此电磁感应的物理本质是广义洛仑兹磁力。	**B3、** 基于麦克斯韦互生场的非对称方程组：对麦克斯韦的“变磁场产生电场”进行洛仑兹变换后而认为“在磁场中的运动者看见了电场和磁场两种场”，于是电磁感应的物理本质又可从麦克斯韦的“互生场”跃变为爱因斯坦的“运动者看见电磁场”。

2 人类在实践中存在的三大纠纷

2.1 人们实践中的光速纠纷

爱因斯坦为了解释 Michelson-Morley 实验，提出了光速不变假设。但第八章用爱因斯坦的数学语言推翻了爱因斯坦的解释。这里进一步从人类的工程实践中来说明他的错误性。

1. 光波垂直辐射情况。光束横向运动，如图 1所示。高速列车的速度为v_x，列车上一发光者对着车窗外发射一激光束 (或激光弹)。爱因斯坦却说：地面人观测到的光速与光源运动无关，恒等于标量c_0，即光波的辐射速度与光源运动无关。如果，按照相对论，地面人看

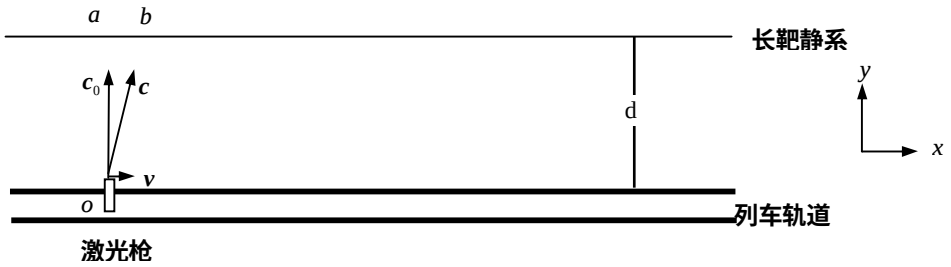

图 1 地面人描绘的光束轨迹c

见的光束 (或激光弹)就成为$\overset{\cup\cup}{oa}$垂线 (始发站的垂线)。即光子打在静系的a处。但是，实际上由于光速是矢量，虽然车上发光者只看见了纵向的光速$c_y = c_0$，但地面上的观察者既看见了纵向的$c_y = c_0$又看见了横向的$c_x = v_x$，因此实测光子的相对速度是$c = c_y + c_x = c_0 + v_x$服从伽利略相对性原理，则光子应该打在对岸静系长靶子上的b处。

再看图 2，光子相对于光源的相对速度是$c_y = c_0$，而光源相对于地面的速度是v_x，因此

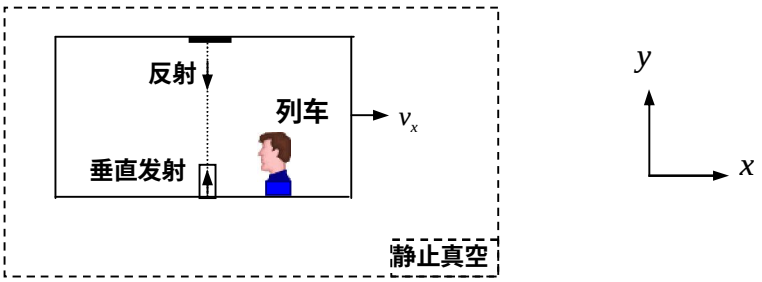

图 2 光速$c = c_0 + v_x$，即光速与光源运动有关、光束不被以太媒质拖曳

光子相对于地面的速度就是$c = c_y + c_x = c_0 + v_x$，这说明光子的速度除了光源的辐射速度$c_0$之外，还有跟随光源一起运动的横向速度$c_x = v_x$，正因为光束跟随列车一起运动，即$c_x = v_x$才使得列车员看见光束是垂线，这是光束跟随列车 (或光源)运动之原因。

见图 3，假如您相信相对论而认为$c_x = 0$，意味着光束不跟随光源运动 (被以太拖曳)，那么人照镜子造成镜像移位、平行的反射光束使得回波移位、干涉仪得不到正面的反射波。

简单地讲，如果你认为光在以太媒质中震荡传播，则必然认为 $c_x = 0$，或即光速不变原理，则垂直辐射的光子被列车员看成斜线光束。实际上，地球在运动，人照镜子的镜像并无移位

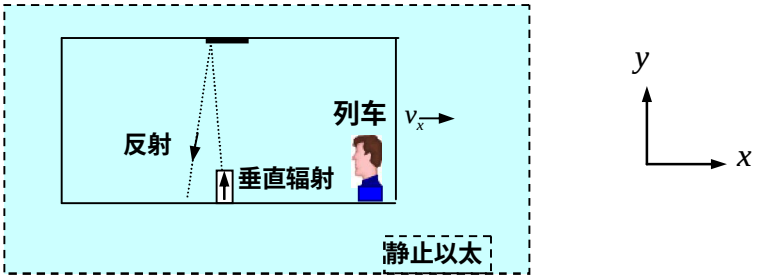

图 3 光速与光源运动无关、只有 $c \equiv c_0 = c_y$、没有 c_x （即光束被以太拖曳）

，即垂直光束没有被以太拖曳，否则人照镜子就成了哈哈镜了。很显然，图 3的光束与客观事实不符，这表明以太不存在，光束必然跟随光源一起运动。

2. 光波水平辐射情况。如下图 4所示，测量者正面迎向光波。爱因斯坦说，无论测量者如何运动，测出来的相对光速都是标量 c_0。即所谓的光速不变原理。但是，大家都知道，速度与波长的关系式是：$c = f\lambda$，既然速度不变则频率不变，这就违背了多普勒定理，也与工程实践不符。尽管爱因斯坦用“ 周期＝光源运动时间＋光波传输时间 ”拼凑了“ 相对论多普勒效应 ”，但在第八章中已经否定了他的“ 拼凑 ”游戏。

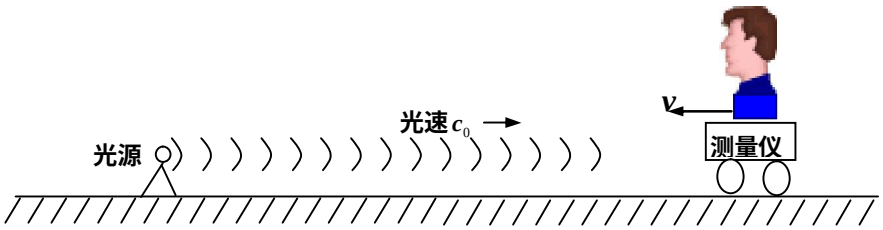

图 4测量者运动

事实上，大量雷达侦察机和测速雷达已经证明了 $f = \frac{c}{\lambda} = \frac{c_0 \pm v}{\lambda} = \frac{c_0}{\lambda} \pm \frac{v}{\lambda} = f_0 \pm f_d$，即证明了伽利略的相对性原理 $c = c_0 + v$，也证明了光速遵循矢量叠加法则。事实上，光速是矢量，爱因斯坦把光速矢量当作标量去看待，其基本概念就错了。

2. 2 人们实践中的电磁感应纠纷

电磁感应的研究，历史悠久，相继有几个物理学定律，但是至今人们还没有弄清楚谁是现象？谁是本质？我们也不得不承认，同样的“ 磁铁与线圈之间 ”的相对运动中，物理本质只有一个。有的定律是现象，有的定律是本质，甚至有的定律是假象。对此，我们就来分析洛仑兹磁力、麦克斯韦旋度场、法拉第定律及相对论电磁学，从他们的理论中来明辨真谛。

1. 关于洛仑兹磁力

洛仑兹磁力如下图 5、6 所示。注意到，对于图 5和图 6来说，在这里法拉第定律和麦克斯韦的互生场理论是无效的，因为导体回路的磁场变化率等于零。

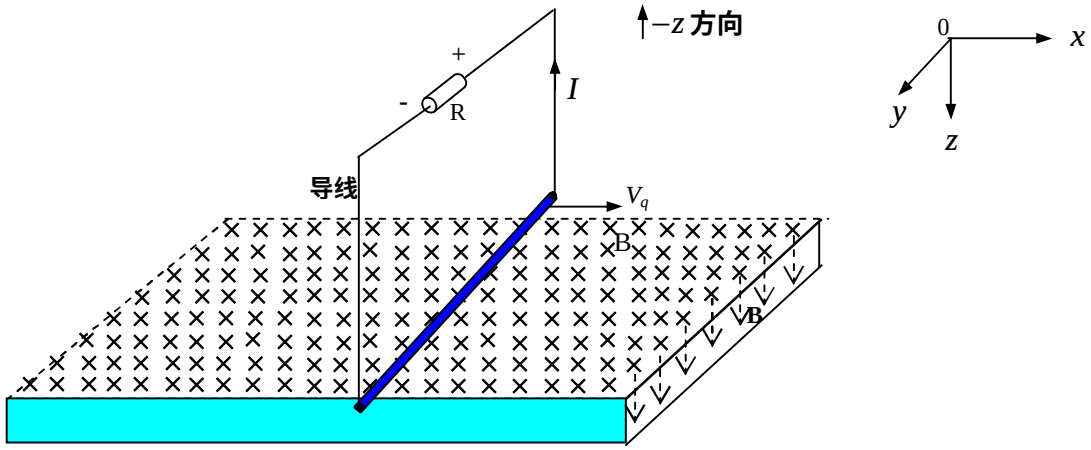

图 5 运动的金属电子切割了静止的磁力线，受洛仑兹磁力 $\boldsymbol{F} = q\boldsymbol{V}_q \times \boldsymbol{B}$

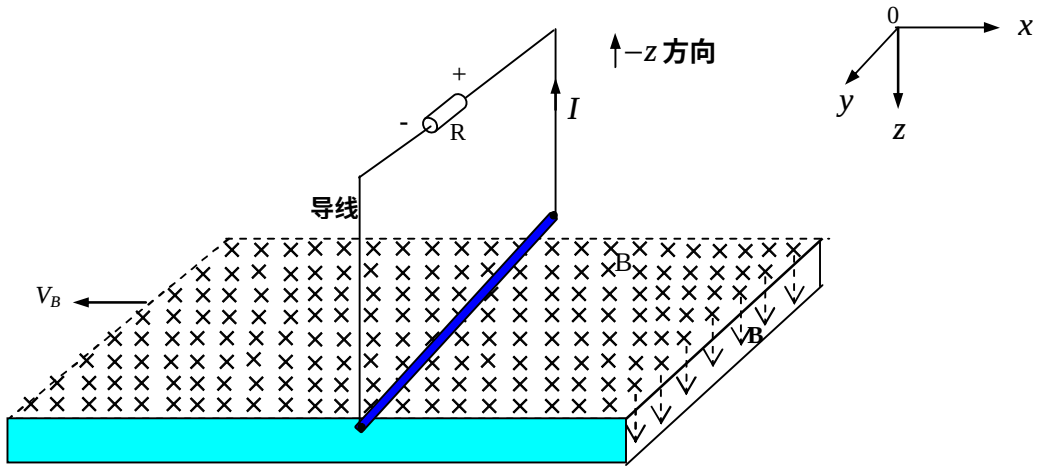

图 6 运动的磁力线切割了静止的金属电子，受洛仑兹磁力 $\boldsymbol{F} = q(-\boldsymbol{V}_B) \times \boldsymbol{B}$

以上图 5和 6的感应电流都是广义洛仑兹磁力的作用结果，即，“运动的金属电子切割磁力线”与“运动的磁力线切割金属电子”完全等效。

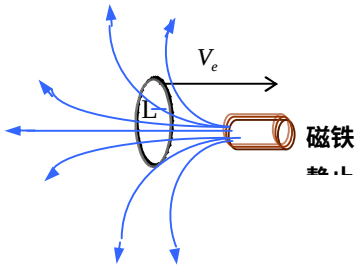

图 7 $\boldsymbol{F} = a\boldsymbol{V} \times \boldsymbol{B}$

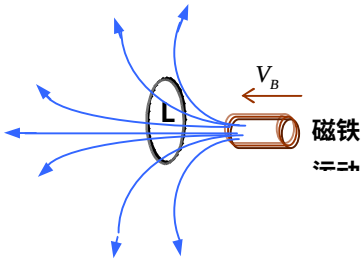

图 8 $\boldsymbol{F} = q(-\boldsymbol{V}_B) \times \boldsymbol{B}$

同样的，我们来对照图 7与图 8。图 7与图 5是等效的，图 8与图 6是等效的，都是切割磁力线。特别是图 8的感应电流也是广义洛仑兹磁力的作用结果，所以四个实验都是金属电子切割了磁力线。注意：这里 $v_q = -v_B$，“线圈向右边运动”与“磁力线向左边运动”，都是金属电子都受到洛仑兹磁力的作用。详见第一章，而法拉第和麦克斯韦对此无能为力。

2. 关于麦克斯韦旋度场

麦克斯韦改造法拉第定律而认为：当磁铁运动时，在自由空间（真空）产生了位移电流 i_D，如图 9所示（这里真空环上没有金属线圈）。即所谓的时变磁场产生电场（位移电流 i_D）。按照麦克斯韦的旋度理论，这个 i_D 又产生了反方向的磁场 B_M'（麦克斯韦互生理论）。

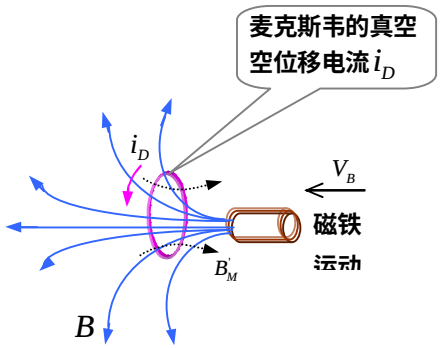

图 9时变磁场产生时变电场，即产生了时变位移电流 i_D，i_D 产生反向的磁场 B_M'

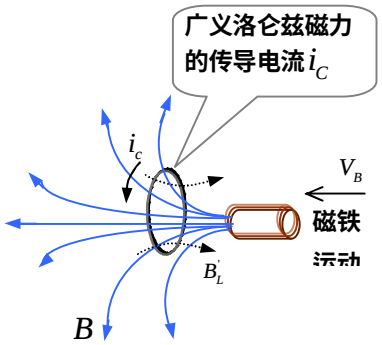

图 10弯曲的运动磁力线切割金属线圈在广义洛仑兹磁力作用下而形成感应电流 i_C，i_C 产生反向的磁场 B_L'

但是大量实验证明：图 9中没有麦克斯韦的 B_M'，这就表明真空中位移电流不存在。事实上，不均匀的地磁场也在跟随地球一起运动，但在自由空间里却没有麦克斯韦的位移电流。因此麦克斯韦的以太位移电流不存在。

另一方面，在反电动势的大量工程实践中如图 10所示：运动的磁力线切割了金属导体，金属电子受洛仑兹磁力 $F = q(-V_B) \times B$ 之作用，就产生了传导电流 i_C，从而此 i_C 产生了反方向的磁场 B_L'，即在反电动势的工程实践中证明了图 10中 $F = q(-V_B) \times B$ 的正确性。对照图 9和 10，可以辨别真伪性。谁是真谛？谁是假象？书中书中第一章有解读。

3. 关于法拉第定律

法拉第定律是：闭合线圈的磁通量发生改变，将在线圈上产生电动势。但是下面的实验则不然。见图 11和 13。

图 11 的实验：半开口屏蔽盒的后壁在左端，一个置于均匀磁场中的闭合导体回路 $abdca$，ab 段导线被置于一个半开口的屏蔽盒之中，而且此屏蔽盒与这个闭合导体之间是绝缘的，cd 段导线暴露在磁场之中。屏蔽盒内的 ab 段长度与 cd 段长度相等，导体回路 $abdca$ 和屏蔽盒一起向右边运动。显而易见该实验的导体回路的磁通量没有变化，如果按照法拉第

定律，则导体回路里没有感应电流。但是，事实上，cd 段的金属电子切割了磁力线，它产生了感应电流，此电流乘以导体内阻便有电动势。

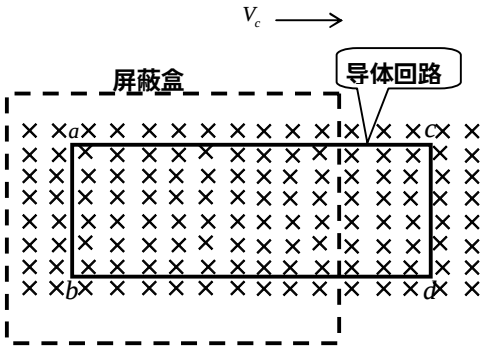

图 11屏蔽盒与导体回路一起向右边运动

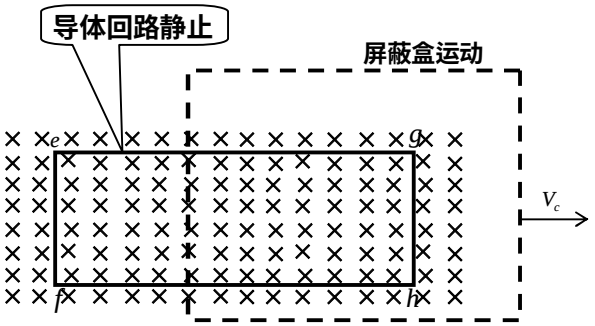

图 12 导体回路静止而屏蔽盒向右边滑动

图 12 的实验：半开口屏蔽盒的后壁在右端，一个置于均匀磁场中的闭合导体回路 $efhge$，gh 段导线被置于一个半开口的屏蔽盒之中，且此屏蔽盒与这个导体回路之间是绝缘的。ef 段导线暴露在磁场之中。这里，回路 $efhge$ 和磁场都是静止的，只有半开口的屏蔽盒向右边滑动 (屏蔽盒左边开口)，使得回路 $efhge$ 内的磁通量改变，即 $\varepsilon = -\dfrac{\partial \Phi}{\partial t} \neq 0$，如果按照法拉第定律，在导体回路里就该有电动势和感应电流，但是实验结果却没有感应电流。

对照与分析图 11和图 12的两个实验，我们可得出结论：闭合导体上的感应电流与回路中的磁通量的变化率无关，感应出来的电流取决于洛仑兹磁力 --- 金属电子与磁力线之间的切割。综合图 5-图 12的实验，可否认为“洛仑兹磁力是真谛，其余是假象”呢？书中有答案，或者说爱因斯坦想建立统一场理论必然要失败。

这里，图 13是磁屏蔽盒的形状结构。

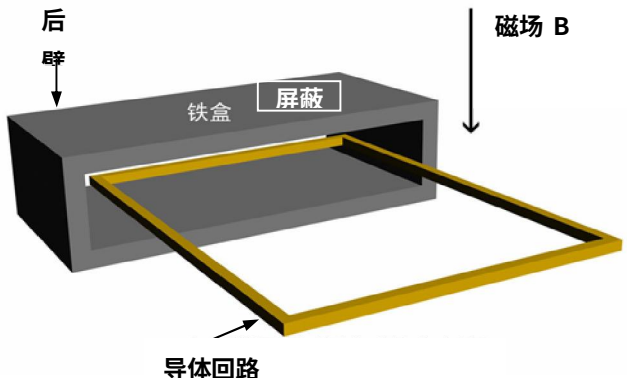

图 13 CenzhiTeng的屏蔽盒

4. 关于相对论电磁学

相对论电磁学也在描述电磁感应问题，即相对论的 $\boldsymbol{E}_{\perp}^{'} = \dfrac{1}{\sqrt{1-\beta}} \boldsymbol{V} \times \boldsymbol{B}_{\perp}$，磁场运动时在自

由空间产生了电场，但是由于V 指向左，根据矢量运算的右手法则，那么$E_{\perp}^{'}$的方向就该是$E_{\perp}^{'}=E_y$，参见图 6。但是实验表明，由爱因斯坦E_y确定导体的电流方向与实验结果不符。

相对论喜欢讨论高速运动问题，如图 14 所示。线性时变电流辐射的时变磁场以高速c_0向左边辐射。如果按照相对论，则金属导体承受的电场强度是$E_{\perp}^{'}=\frac{1}{\sqrt{1-\beta^2}}V\times B_{\perp}=\infty$。在这里时变磁场的运动速度确实是光速$c_0$。显然，相对论电磁学在这个实验中与客观事实不符。

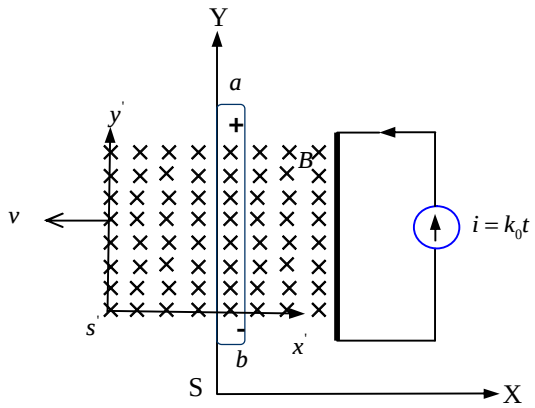

图 14磁力线以光速c_0辐射并切割金属电子

总之，参见图 9 与图 10，同样的线圈与磁力线之间的切割实验，四家理论的物理本质不相融。是统一力正确或是统一场正确？从以上 9个实验中可看出，只有广义洛仑兹磁力才能全面的解释所有电磁感应现象，而其余理论只是对个别特殊现象的描述，只能视为假象或谎缪。因此说电磁感应中确实存在纠纷问题。广义洛仑兹磁力才是物理本质，详见第一章。

2.3 人们实践中的时空纠纷

爱因斯坦发表相对论强调，“谈论绝对空间是没有意义的，地球自转引起力学上的差别是微小的，按照麦克斯韦电动力学，当磁铁运动时在空间产生了感应电场，于是线圈中有了电流；而当线圈运动时在空间没有产生感应电场，可是线圈中照样有电流，可见空间本不该对称 (号称相对性原理)。L ；James 实验表明相对于以太的运动可测，而 Michelson-Morley 实验表明相对于以太的运动不可测，我们可以假设光速不变 (号称光速不变原理)L ”。于是狭义相对论认为：运动的尺寸会压缩，运动的时钟会膨胀。

1. 相对论违背自然。爱因斯坦的两个依据是错误的，即，光速不变原理是错的，相对性原理是错的，如前五章所述。大家都知道月球绕地球运动，在正月十六（Calendar in China）晚上我们看见月亮是圆的，但在相对论的眼里是椭圆，因为相对论认为长轴在运动方向，因运动才被压缩成正圆了。天文学家拍摄到的行星是圆的，但在相对论的眼里都是椭圆被压缩而成的。行星有公转和自转，因此在相对论眼里是：行星的长轴和短轴是变化的 -- 运动方向的直径变短、垂直方向的直径不变。在太空的宇航员经常被相对论变形，一会儿变矮、一会变长，一会儿变胖、一会儿变瘦。转盘上的相对论者认为越转越紧，定盘上的相

对论者认为越转越松。如此一来，基于欧几里德空间而计算出来的圆周率也将被相对论者重新计算。大家还记得，《数学手册》里的三角几何和（牛顿－莱布尼兹）微积分都是基于欧式空间和绝对时空观而得出来的结论，也被千年工程实践所证实。假如工程实践中承认爱因斯坦的“ Riemann 几何 ”和相对时空观，那么现在的《数学手册》将被相对论者推倒重写。这意味着相对论者不相信人类千年工程实践是真的。

2. 两相对论者互相矛盾。夫妻俩都是相对论者，丈夫买来两块相同的金表。丈夫说：“ 爱妻呀，我经常出差在外，运动量较大，所以我的钟表较慢 ”。但是其妻子是造诣更深的相对论专家，于是妻子说：“ 老公呀，没有绝对的运动，只有相对的运动，取老公你为静系，我是动系，所以我佩戴的钟表要慢一些 ”。这就是夫妻相对论者之间的纠纷，互相矛盾。

现在有孪生兄弟二人同时作逆向太空旅行，由于相对论没有绝对的静系也没有绝对的动系，只有相对的参照系，所以任何一个旅行者都可以设为静系，任何一个旅行者都可以设为动系。注意到在 $\Delta t=\dfrac{\Delta t'}{\sqrt{1-\beta^2}}$ 的计算中与运动方向无关，而且转弯时的加速场也相等。可是，孪生甲说孪生乙年轻了，而孪生乙却说孪生甲年轻了。对于这种佯谬，无论相对论怎样辩解，其荒谬性总是存在。

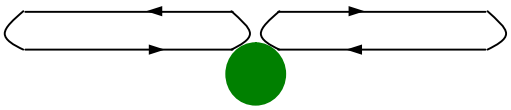

图 15 孪生兄弟同时作太空旅行

3. 时钟变慢是牛顿定律的必然。有人说，围绕地球飞行的时钟会变慢，已经获得飞行检验。但要注意：时钟是度量属性，时间才是自然属性。其实，围绕地球飞行的时钟变慢恰是牛顿定律的必然。本书论证表明：根据牛顿力学定律，地球两极的钟摆周期是 $T=2\pi\sqrt{\dfrac{l}{g}}$，再根据牛顿惯性定律，地球赤道线上的钟摆周期是 $T=2\pi\sqrt{\dfrac{l}{g-a_{离}}}$，这显然，赤道线上的周期变慢。其实，钟摆置于电梯内，在电梯加速地上升过程中，钟摆变快；在电梯加速地下降过程中，钟摆变慢。一切由物体运动 (包括粒子运动)产生的时钟，都会受到附加加速度的影响。时钟的快慢不是匀速直线运动所致，而是加速度所致。时钟是人为的度量属性，取决于度量工具和环境。但是时间不等于时钟，时间则是自然属性，时间是绝对的且是一维流逝的，伽利略变换原理早已证明了时间是绝对的且是一维流逝的。

4. 基于以太说的弯曲空间。从麦克斯韦开始，一致认为光束在静止的以太媒质中震荡传播，无论是光源运动或是测量者运动，而光束在以太媒质中的传播速度恒等于标量 c_0，从而 A 处的光子是 C 处的光源传播的，B 处的光子是 D 处的光源传播的。现在的问题是，在某时刻的天文测量中见到了 B 处的光子，见图 16。于是基于以太说的的人士认为：B 处的光子是 D 处光源传播的，由于 DB 线上在此时此刻有遮挡物的球 P 存在，从而大势吹嘘：D

处传播的光波绕着中心球 P 走弯路而到达了 B 处（即所谓弯曲空间）。这也是相对论者宣传出来的奇迹。但仔细想来，这种空间弯曲的论调其实就是以太说的翻版，以太空间被球 P 压缩成喇叭形状，似乎与相对论的 Riemann 空间同出一辙。

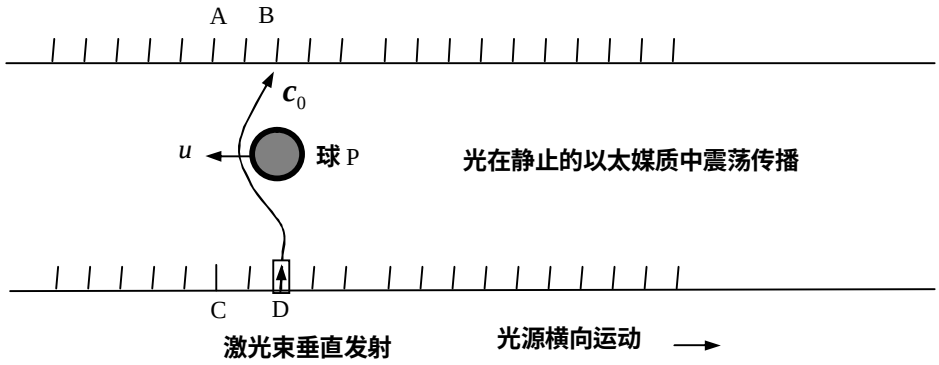

图 16 由于光束在以太媒质中震荡传播，光速与光源运动无关，B 处看见的激光弹是 D 处光源辐射的，所以从 D 到达 B 处的光线是弯曲的，从而认为以太空间就是弯曲的。

5. 基于相对论的Riemann空间。爱因斯坦说光速与观测者的运动无关，恒等于标量 c_0，见图 17。他说：A处在 $t=\Delta t$ 时刻收到的光子是静系 C处的光源在 $t=0$ 时刻发射的光子，但此时AC线上有球P遮挡，那么光线只能绕着球P而走弯路，即空间是弯曲的。再用 $t=\Delta t=\frac{\overset{\frown}{CA}}{c_0}$ 来计算时差，故相对论又解释了水星进动值推前的原因。似乎很神奇，但是，下述第六和第七之欧式空间观点重新解释了水星问题。

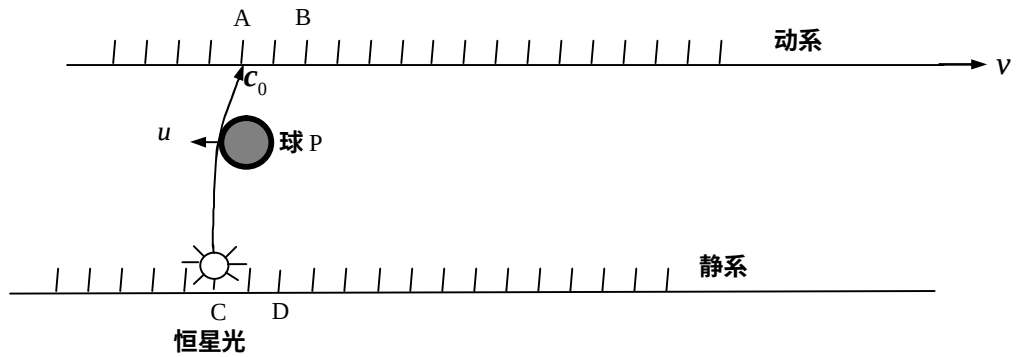

图 17 相对论认为 $\Delta t=\frac{\overset{\frown}{CA}}{c_0}$，光线在出现的时刻，由于 $\overline{CA}$ 垂线上有遮挡物球 P，于是认为光线绕过球 P 而走弯路，从而认为空间是弯曲的。(为了醒目，夸张了动系速度)

6. 基于欧式空间的光源运动情况。由于光子跟随光源运动，见图 18，C 是恒星，B 是地球人。图中 AC是垂线，BD也是垂线。在 $t=0$ 时刻激光抢在 C处发射一光子，此时球 P的位置如图 18所示。

由于光源在运动，因 $\overline{CD}=\Delta t\cdot v$，所以在 $t=\Delta t$ 时刻光源到达了 D 处，又因 $c=c_0+v$，所以光束已经打在 B处了。其计算是 $\overline{CD}=\Delta t\cdot v$，$\overline{AC}=\Delta t\cdot c_0$，光子路程是

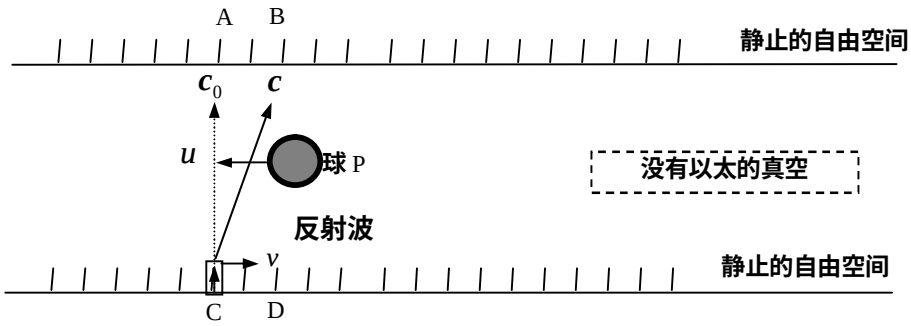

图 18 在 $t=0$ 时刻各自的位置

$\overline{CB}=\Delta t\cdot c=\Delta t\sqrt{c_0^2+v_x^2}=\sqrt{\overline{DB}^2+\overline{CD}^2}$，所以光子在 $t=\Delta t$ 时刻已经打在 B 处了，而且光源也已经达到了 D处。Δt 时刻，各自的位置如图 19所示。

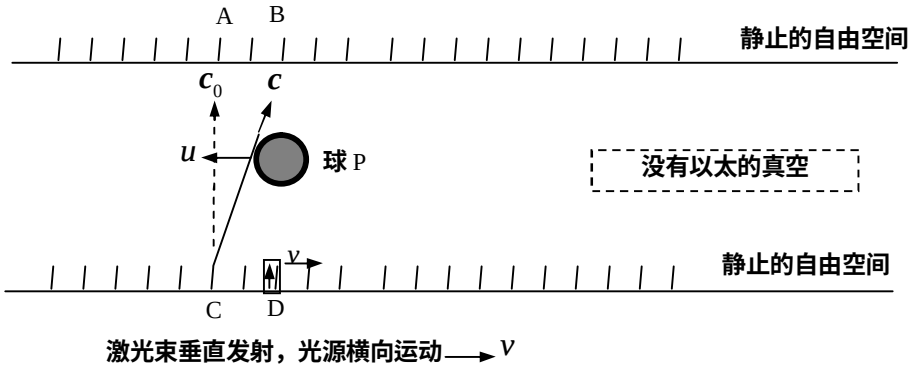

图 19 在 $t=\Delta t$ 时刻各自的位置

这里的关键在于：光束不被以太拖曳，根据伽利略相对性原理，叠加后的光速是 $c=c_0+v$，所以 C处发射的光子在 $t=\Delta t$ 时刻已经到达了 B处。尽管在 Δt 时刻 DB线上有遮挡物，但光子 (激光弹)在 Δt 之时已经到达了 B处。此解释与伽利略相对性原理的解释一致。

对照图 17和图 19，值得注意的是，第一、 B处看见的光不是 D处辐射的，而是在 Δt 之前由 C处光源辐射的；第二，以太并不拖曳光束，事实上光波跟随光源一起作运动，服从伽利略相对性原理 (或矢量叠加法则)；第三，以太媒质不存在，光波是直接辐射，相对于辐射源的相对速度是矢量 c_0服从矢量叠加原理。第四，所谓的光线弯曲和空间弯曲都是相对论和以太说同出一辙。

7. 基于绝对空间的观察者运动情况。设静系光源在 C处的 $t=0$ 时刻，辐射“ 光芒四射

”的星光，其中一条光线沿着$\overline{CB}$辐射，各自位置在不同的时刻是不同的，如下三图所示。

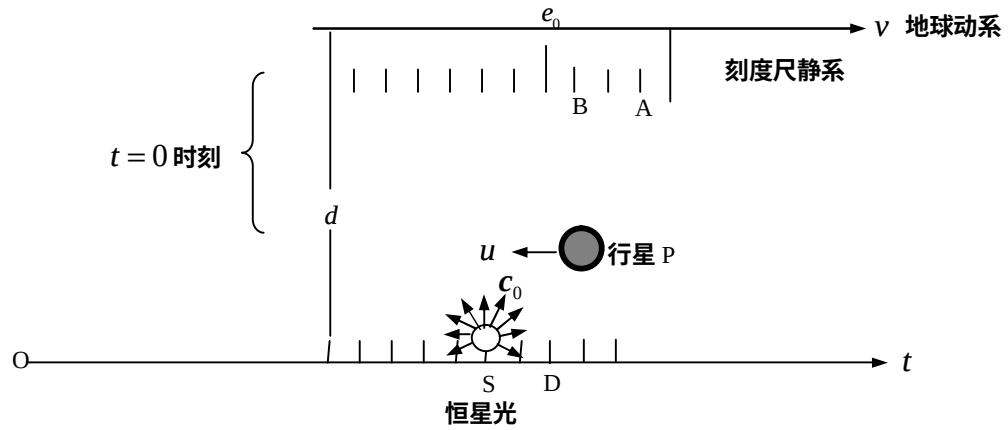

图 20 在$t=0$时刻，恒行 S、行星 P、测量者 e 各自在静系中的位置

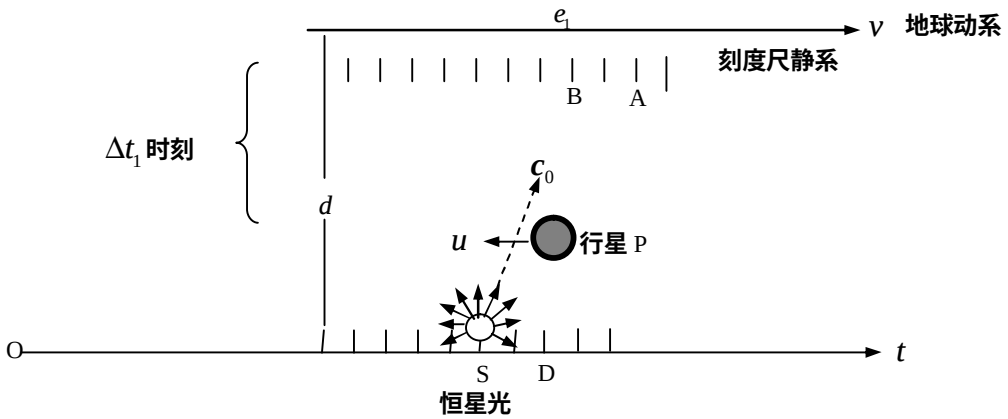

图 21 在$t=\Delta t_1$恒行 S、行星 P、测量者 e 各自在静系中的位置

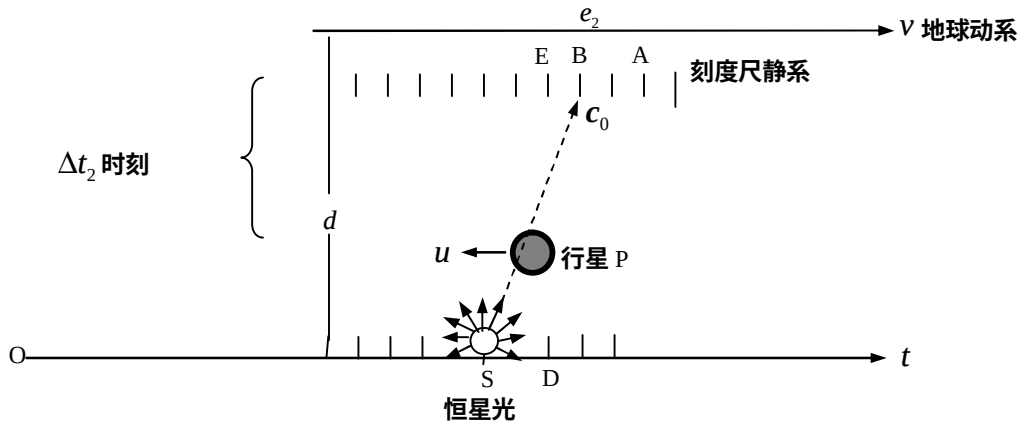

图 22 Δt_2 时刻恒行 S、行星 P、测量者 e 各自在静系中的所在位置

以上三图是假定恒星为参考的静系，光芒四射的恒星光中有一条射线 (瞄准)直射静系中的 B

点。在 Δt_2 时刻击中了 B 点。在这段时间里，地球的观测者随地球一起以速度 v 向右边运动了 $l_1 = \Delta t_2 \cdot v$，行星以速度 u 向左边运动了 $l_2 = \Delta t_2 \cdot u$。使得“行星遮挡”，但光子在 Δt_2 时刻已经到了 B 处。

上图 20、21 和 22 是基于绝对中空的分解图，应该是正确的。即运动到 B 处的观测者 e_2 在 Δt_2 时刻看见的光子是星光某一条射线在 $t = 0$ 时刻辐射的。但目前造成错觉可能有三种情况：其一，错把弧线 SB 当作光子的运动路线，即所谓的“光线弯曲”。其二，错把 $t = \frac{\overline{S - e_1}}{c_0}$ 当作光子出现的时刻，或者错把 $t = \frac{\overline{S - e_0}}{c_0}$ 当作光子出现的时刻，于是错误的认为水星进动值提前。其三，没有考虑地球的自转带来的计算误差。天文台是架设在地球表面上的，因此天文台的运动速度不是公转的 v，而是 $V = v + \omega \times r$。从测量误差的毫秒级来看，作者认为很可能属于第三种情况的误差。当然还需天文学家的重新计算与考察。无论如何，单就一个偶然情况下的微弱误差不能作为光线弯曲的证据。

这里，需要重提的是，恒星在静系辐射“光芒四射”的光线时，每一条射线上的光子或第一波峰相对于源的相对速度都是 c_0，即每一条辐射线上的光子沿着射线前进的速度都是 c_0，参见图 23。一运动的观察者平行的从右向左边运动（速度是 v），在 t_1 时刻到达 e_1 处，在 t_2 时刻到达 e_2 处，于是 $\overline{se_1} = c_0 \Delta t_1$ 且 $\overline{se_2} = c_0 \Delta t_2$，但是千万要注意：这不是光速不变假设。因为 $\overline{se_1} \neq \overline{se_2}$ 且 $\Delta t_1 \neq \Delta t_2$ 而且 $t_2 \neq t_1$。在这里要分清楚**何时何地看见了那一条光线**是很重要的。可以详细计算出：观测者 e 相对于各条光线的相对速度 c 是不同的，这是因为两矢量的夹角不等和观测者在运动之原因，使得 $t_2 \neq t_1$。举例说，S 和 e 都从 $t = 0$ 开始计时，观测者看见光线 1 的相对速度与看见光线 2 的相对速度，必须按照第八章的光速叠加原理来计算才是正确的（这属于两个自由矢量 c_0 与 v 的叠加，并注意 射线1 ≠ 射线2）。当且仅当观测者 e 以光源 S 为圆心而作圆周运动动时，才有光速 $c \equiv c_0$，这是物理概念和物理本质，否则射线 1 和射线 2 被合并在一条线上。最典型的就是 e_A 和 e_B 不可能同时看见第一波峰（第一个光子）；但当地球围绕太阳作椭圆运动时，按照光速叠加原理，则地球人看见的太阳光速与 c_0 存在微小差别

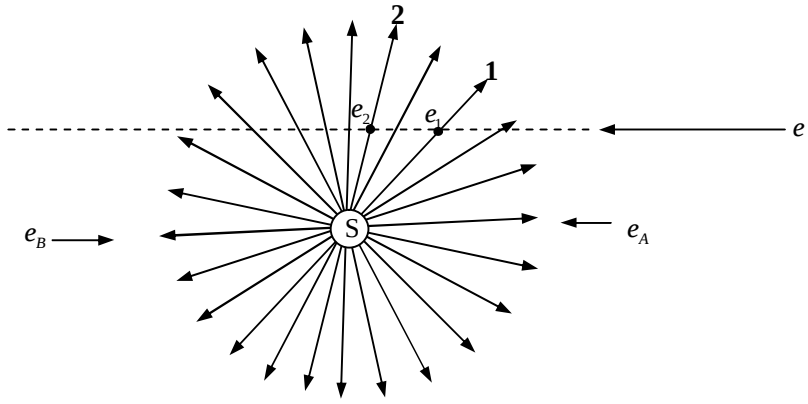

图 23　$t = 0$ 时刻 S 发射光，观测者 $t = 0$ 时刻运动，要分清楚何时何地看见了哪条光线

$\Delta c'$，我们不可以把$\Delta c'$引起的误差而错误的认为“水星进动值提前的原因是空间弯曲”。事实上，当且仅当观测者e以光源S为圆心而作圆周运动动时，才有光速$c \equiv c_0$，其光速方向是运动者轨迹的法向。

面对以上三大纠纷，作为21世纪的现代人们，特别是科学家、院士、专家教授和物理学教师们不得不解决这些重大疑难问题。我对三大纠纷问题及其连带问题的解读写在《自然科学原理总结》书里，如果您们认为我的解读有误，还恳请国内外院士们、专家学者们和热爱自然科学的志士们公开发表文章对此书进行审判，也希望您们全面考察历史重大物理实验，全面研究三大纠纷的根源所在，从错综复杂的纠纷中寻找真理路线，抓住物理概念，辨别物理本质，用一个统一的思想和灵魂来进行全面而统一的自然属性回答，这是历史赋予科学界的使命，也是全球亿人民赋予科学界的重大责任。这里我强烈呼吁，作为权威人士，您不可以面对三大纠纷麻木不仁，教授不可以“洲际导弹”，研究员不可以只顾技术赚钱。

Preface

Natural science research benefits humankind and has brought civilization and progress to the world. The great achievements of the ancestral science pioneers who made great contributions to human civilization are recorded in the natural scientific development history of more than two thousand years. But it is regretful that the three big disputes including light velocity dispute, electromagnetic induction dispute and space time dispute still exist in natural science area. Although three great disputes are sometimes intensive, sometimes apathetic, but people always concern disputes propositions, concern that the propositions can be solved as soon as possible, expects that natural science be on the right track to reveal deeper natural mystery.

1 scientists regret’s three disputes

• Light velocity dispute. In 1727, James thought that light propagated in the Ether-medium at the constant speed of c_0 in oscillating motion, Ether was static and earth was in motion. If Ether was not dragged by the earth, half a year later, the motion that earth rotated around the sun was opposite, there should be a deflection angle θ'. Half a year later, James did an observation experiment, and measured this deflection angle θ'. This explains that Ether is not dragged by the earth, and Ether is absolute space. In 1851, Fizeau made an observation experiment on light velocity, and measured that light velocity had relation with propagating medium, and light velocity was dragged by moving medium (water). But, in 1881, Michelson-Morley thought light propagated in the Ether-medium at the constant speed of c_0 in oscillating motion, but interferometer moved at the speed of $\boldsymbol{v}$ relative to Ether medium, this equaled to that medium (Ether) moved backwards. If light velocity is dragged by Ether at the speed of $-\boldsymbol{v}$, we can observe the

interference fringes caused by wave path difference, hereby they used interferometer to measure and get the zero result. Einstein considered these experiments as “according to the motion of Ether, some are measurable, some are not”, thus assumption of constancy of light velocity was introduced. Just think: this assumption concealed the inherent problem of light velocity, light velocity is absolute or relative? Light velocity is vector or scalar? Motion of light obeys Galilean principle of relativity or Lorentz transformation? Light velocity is unchangeable or superimposed?

- Electromagnetic induction dispute. In 1882, Faraday thought that the induction between magnet and conductor was the induced electromotive force dU generated in the conductor, while in 1834, Lenz thought the induction was the induced current generated in the conductor. Although there are both inductions generated in the conductor, because dU and I happen in the both sides of Ohm’s law, the question which is reason or result is a philosophical problem as egg and chick. In 1865, Maxwell thought that when magnet was moving in the Ether space, it generated eddy electric field $\boldsymbol{E}$, and integral of $\boldsymbol{E}$ could get the electromotive force, differential of $\boldsymbol{E}$ could get the current, it seemed to calm down the philosophical dispute of causality between Faraday and Lenz. But think over: it has much more differences with the former laws, the physical essences of induction generated in conductor or Ether space are entirely different, because conductor has inherent difference with Ether. In 1892, Lorenz created principle of metal electric, so the metal electric formed induced current by Lorentz magnetic force, and its essence was force $\boldsymbol{F}$ but not field $\boldsymbol{E}$. In 1897, J・J Thomson discovered the electron and proved the correctness of electron theory of Lorentz. In fact, no matter motion of coil or motion of magnet, as long as there is relative motion in magnetic field and conductor, magnetic electron will cut the magnetic line of force, that is: “coil is static and magnet moves towards left” and “magnet is static and coil moves towards right” are the same situation, they both means that magnetic electron cuts the magnetic line of force. So, physical essence of electromagnetic induction can be united in Lorentz magnetic force. But in 20 century, Einstein proposed relativity, and observers watched electric field $\boldsymbol{E}$ and magnetic field $\boldsymbol{B}$. So far, the inherent problems of electromagnetic induction in magnet and coil are still not united, five views are not consistent, but the truth is only one. Textbooks only copy word by word and teachers only teach chapter by chapter, and never analyze their essential distinction. When we think comprehensively, we will find that which is the essence, which is the phenomenon, which is the reason and which is the result, even which is the truth is and which is pseudo image?
- Time space dispute. In 1905, Einstein published relativity and emphasized that “talking about absolute space is meaningless, the difference of mechanics caused by earth rotation is tiny; according to Maxwell electrodynamics, when magnet moves in the space, and it generates inductive electric field, so there is current in the coil; when magnet moves in the space, and it doesn’t generate inductive electric field, but there is still current in the coil, so the space is not symmetrical (which is called principle of relativity). … ; James’ experiment showed that the motion relative to Ether is

measurable, but Michelson-Morley experiment showed that the motion relative to Ether is immeasurable, we can suppose that light velocity is constant (which is called principle of constancy of light velocity)…". Based on this, Einstein derived his special relativity according to mathematic transform of Lorentz. But special relativity reveals more and more questions, and these questions are more and more clear, just because materialists don't believe that recent him is preexistent her. In early 1980s, many university students questioned relativity, in 1990s, scholars of School of Geodesy and Geomatics in Wuhan China, Geng Xianwen of Micro electric technology institute in Xi'an, professor Li Zifeng of Yanshan university, Huang Demin of navy and some other willful persons purchased the truth, wrote treatises and books, used materialism to deny relativity, and pointed out "the evil consequence caused by relativity is: to misguide people and hinder the development of physics". Some willful persons in China established some websites of anti-relativity and "sodality of anti-relativity", meanwhile they also introduced some situations that many famous scientists home and abroad opposed relativity. The famous physicist Lu Hefu broke through several obstacles and announced to the world "I'll challenge Einstein's relativity". Chinese former director in State Commission of Science and Technology for National Defense Industry, president of the Chinese Academy of Engineering and academician of the Chinese Academy of Sciences and Chinese Academy of Engineering Song Jian called out young scientists should dear to innovate and he also denied relativity (quoted from *Scientific and Technological Information*). Chinese ministry Wan Gang of Ministry of Science and Technology learned about that after Li Zifeng used materialism to oppose relativity, he asked someone to encourage him (quoted from *Science and Technology Daily*). There are more scientists abroad who oppose the relativity, such as Lorentz, Poincare, Rutherford, Davis and Michelson - the founder of Michelson-Morley experiment and so on. In a word, relativity does not resolve the two main disputes, but brings the third main dispute. Is time one-dimensional elapsed or can it be stopped? Is space isotropical or constringent?

The three main disputes between two groups of top scientists are shown in the following table

Group A Newton, Galileo, Forentz and author	**Group B** Einstein, Maxwell and relativists
A1 Radiation velocity of light c_0 and movement velocity of observer v are both vectors, and the two velocity vectors obey superposition principle of vector, so the observed light velocity c and the movement velocity of observer v obey Galilean principle of relativity $\boldsymbol{c} = \boldsymbol{c}_0 + \boldsymbol{v}$. **A2** Based on metal electron principle, Lorentz magnetic force and Ampere's law: when magnet is static and coil is moving, magnetic electron in motion cuts the static magnetic line of force; and when coil is static and magnet is	**B1** Ignore the vector attribute of which light velocity has size and direction, do not get to the bottom of the true reason of zero result of Michelson-Morley experiment, and do not research how the light moves, only believe the assumption of constancy of light velocity. **B2** According to asymmetric equation set of Maxwell alternate fields: after making Lorentz transformation to "transverse magnetic field generates electric field", the observers in the motion of magnetic field watched two fields - magnetic field and electric field , so the

moving, the magnetic line of force in motion cuts static magnetic electron. So the physical essence of electromagnetic induction is general Lorentz magnetic force. **A3** Time is absolute and elapsed, and time is natural attribute, but clock is measurable attribute; space is absolute and isotropic. Absolute time space view is based on Newton's law and Galilean principle of relativity.	physical essence of electromagnetic induction can turn into "observers can see the electromagnetic field" of Einstein from Maxwell alternate fields. **B3** Time is relative and expands with motion, time and clock both have motive attribute; space is relative and compressed with motion. Relative time space view is based on asymmetric equation set of Maxwell and the zero result of Michelson-Morley experiment.

2 there are three disputes in engineering pracyice

This book *Conclusion of Natural Science Principle* is the summary and conclusion of physical principle of numerous predecessors in science. In the conclusion, three disputes were revealed (refer to the preface), there was two dominations in the theory systems of top scientists. In order to unscramble these disputes, and purchase science truth, this book was written after 20 years research. In order to increase your reading interest, these three disputes are written as a popular science article which can be understood by everyone. After reading this article, your interest will increase.

2.1 Light Velocity Dispute in Human Practice

1) Vertical radiation condition of light wave.

Light beam moves transversely, as shown in figure 1. Speed of high speed train is $\boldsymbol{v}_x$, and glitter in the train emits a laser beam to the outside window. But, Einstein said: light velocity observed by dwellers had no relation with the motion of light source, and it was constant scalar c_0, that is radiating velocity of light wave had no relation with the motion of light source. So, according to relativity, direction of light beam will be the $\overrightarrow{oa}$ line in the figure. That means photon hits a of static system. But, the truth is: light velocity is vector, although glitter in the train only watches longitudinal light velocity $\boldsymbol{c}_y = \boldsymbol{c}_0$, observer on the ground watches longitudinal velocity $\boldsymbol{c}_y = \boldsymbol{c}_0$ and latitudinal velocity $\boldsymbol{c}_x = \boldsymbol{v}_x$, so the measured relative speed of photon is $\boldsymbol{c} = \boldsymbol{c}_y + \boldsymbol{c}_x = \boldsymbol{c}_0 + \boldsymbol{v}_x$, which obeys Galilean principle of relativity, but photon hits b.

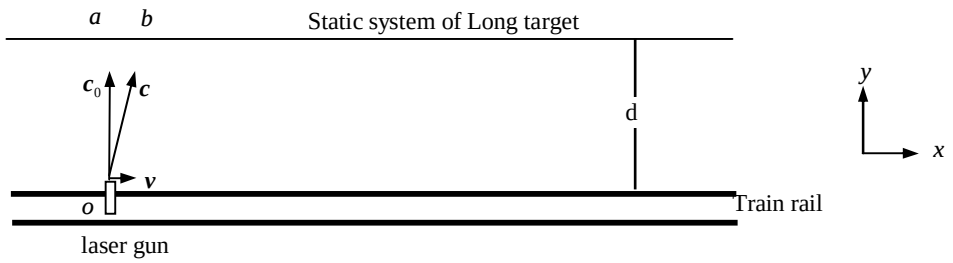

Figure 1 Light beam path $\boldsymbol{c}$ described by dwellers $\boldsymbol{c}$

Let's take a look at figure 2, velocity of photon relative to light source is $c_y = c_0$, and velocity of light source relative to the ground is v_x, so velocity of photon relative to the ground is $\boldsymbol{c} = \boldsymbol{c}_0 + \boldsymbol{v}_x$,

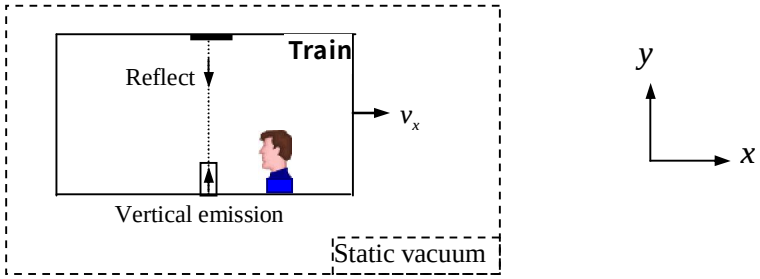

Figure 2 Light velocity $\boldsymbol{c} = \boldsymbol{c}_0 + \boldsymbol{v}_x$, that is light velocity has relation with the motion of light source, and light beam will not be dragged by Ether-medium

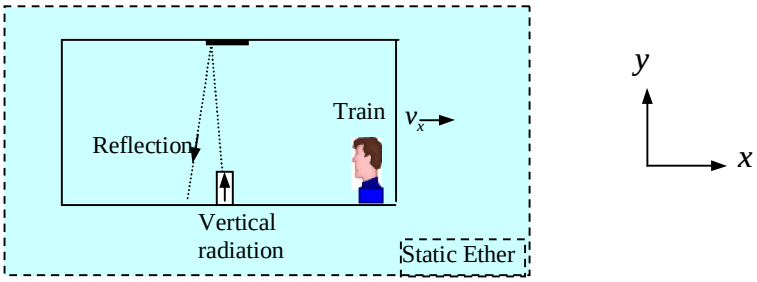

Figure 3 Light velocity has relation with the motion of light source, there is only $c \equiv c_0 = c_y$, no c_x (light beam is not dragged by Ether)

this explains that: except radiation velocity of light source c_0, photon velocity also has the latitudinal velocity $c_x = v_x$ moving with light source, just because c_x makes train attendant see the vertical light beam.

See figure 3, if you believe in relativity and think $\boldsymbol{c}_x = 0$, it means light velocity doesn't move with light source (dragged by Ether), so people looking at the mirror causes mirror image shift, parallel reflected beam enables echo shift and interferometer can't get positive reflected wave. Simple speaking, if you think that light is in oscillatory propagation in the Ether medium, you must thick $\boldsymbol{c}_x = 0$, that is principle of constancy of light velocity, so photon radiated vertically is diagonal light beam according to train attendant's observation. In fact, earth is moving, and the mirror image doesn't shift.

Obviously, light beam is inconsistent with objective fact in figure 3, which indicates Ether not existing.

2) Horizontal radiation condition of light wave.

As shown in figure 4, measurer faces light wave. Einstein once said: no matter how measurer moves, measured relative light velocity is always c_0. This is called principle of constancy of light velocity. According to the forum of velocity and wave length: $f = \frac{c}{\lambda} = \frac{c_0}{\lambda}$, it indicates no Doppler frequency f_d. But in fact, relative velocity between measuring apparatus and light wave obeys Galilean principle of relativity, that is $\boldsymbol{c = c_0 + v}$, and only that Doppler effect exists $f = \frac{c}{\lambda} = \frac{c_0 \pm v}{\lambda} = \frac{c_0}{\lambda} \pm \frac{v}{\lambda} = f_0 \pm f_d$.(Maybe someone makes up “relativistic Doppler effect”, chapter 8 denies relativistic Doppler effect in this book). Actually, as long as you admit that light velocity is vector, you must obey vector superposition principle. In fact, lots of radar scout and speed

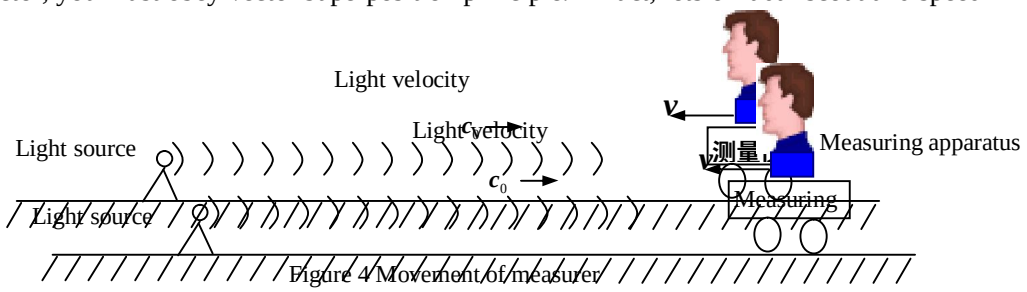

Figure 4 Movement of measurer

Figure4 Measuer with motion

measuring radar has proved the correctness of $\boldsymbol{c = c_0 + v}$. So we can say that Einstein’s assumption of constancy of light velocity is inconsistent with human engineering practice.

2.2 Electromagnetic Induction Dispute in Human Practice

Research of electromagnetic induction has a long history, and there are several physical law one by another, but people still don’t make clear that what is phenomenon, what is essence? We have to admit: in the same “between magnet and coil” relative movement, physical essence only has one. Some laws are phenomenon, some essence, some even false image. For this reason, let’s first take a look at the Lorenz magnetic force. Then we can see the Maxwell theory, Faraday’s law and relativity, we can make a clear distinction between right and wrong from their theory.

Lorenz magnetic force is shown in figures 5 and 6. Please note that: as for figure 5 and 6, Faraday’s law and Maxwell curl theory are invalid, because change rate of the magnetic field in this space is zero.

1）About Lorenz magnetic force

The induced currents in above figure 5 and 6 are both action results of general Lorentz magnetic forces, there is no other reason. The induced currents in above figure 7 and 8 are both action results

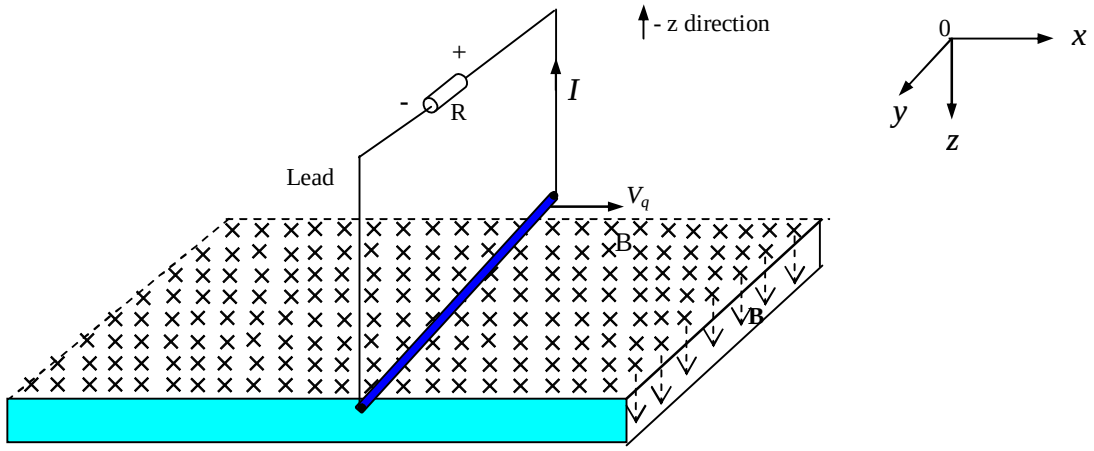

Figure 5 magnetic electron in motion cuts the static magnetic line of force, under Lorentz magnetic force $\boldsymbol{F} = q\boldsymbol{V}_q \times \boldsymbol{B}$

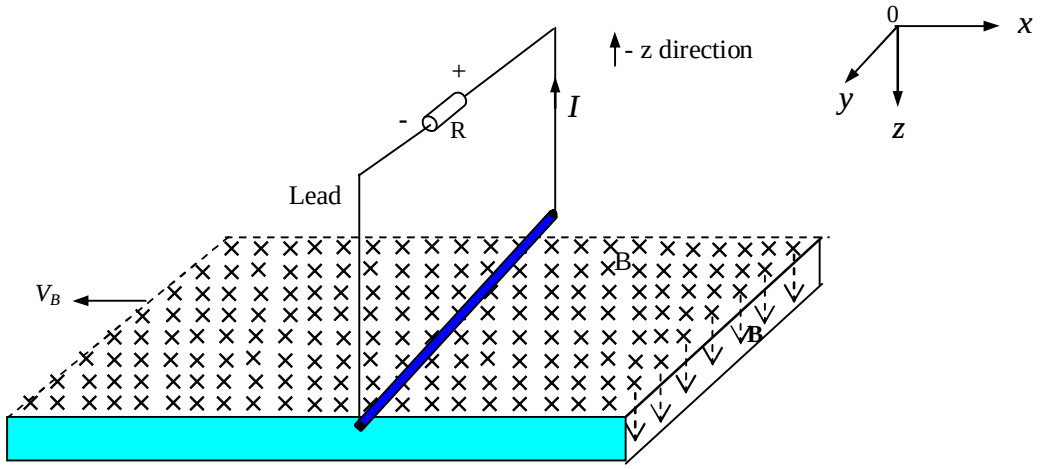

Figure 6 Magnetic line of force in motion cuts static magnetic electron, under Lorentz magnetic force $\boldsymbol{F} = q(-\boldsymbol{V}_B) \times \boldsymbol{B}$

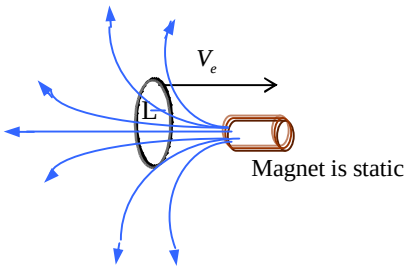

Figure 7 $\boldsymbol{F} = q\boldsymbol{V}_q \times \boldsymbol{B}$

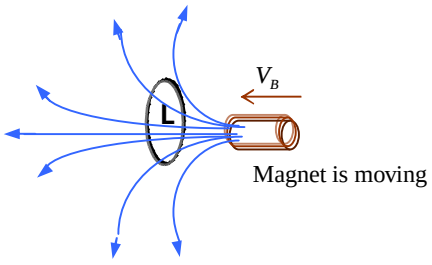

Figure 8 $\boldsymbol{F} = q(-\boldsymbol{V}_B) \times \boldsymbol{B}$

of general Lorentz magnetic forces, and equivalent with figure 5 and 6 ---- magnetic electron cuts

the magnetic line of force. Please note: here $v_q = -v_B$, "coil moves towards right" and "magnet moves towards left", magnetic electron are all under Lorentz magnetic force.

2）About Maxwell curl theory

Maxwell changed Faraday's law and thought: when the magnet is moving, it generates displacement current in free space (vacuum) i_D, as shown in figure 9 (no magnetic coil). This is time-varying magnetic field generates electric field (displacement current i_D). According to Maxwell curl theory, i_D generates magnetic field in negative direction B_L' (Maxwell curl theory). Lots of experiments prove that: there is not Maxwell's B_M' in figure 9. If magnet moves in the free space, and generates curl electric field (displacement current), displacement current generates new magnetic field B_M', which is magnetic field in negative direction B_M'. But there is no so called B_M' in free space. In fact, uneven magnetic field is moving, but there is no displacement current of Maxwell in free space. So, displacement current of Maxwell doesn't exist.

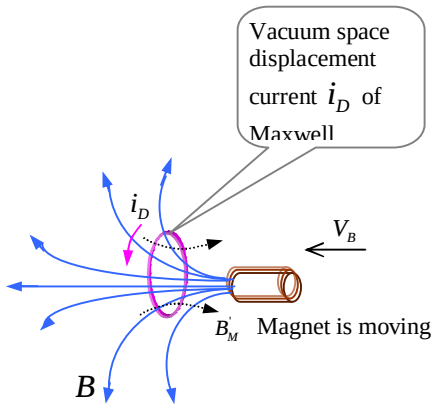

Figure 9 ime-varying magnetic field generates time-varying electric field, which is time-varying displacement current i_D, and i_D generates contrast magnetic field B_M'

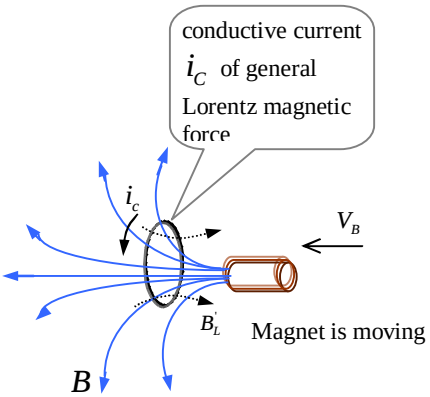

Figure 10 ending magnetic line of force in motion cuts the metal electron, under the action of general Lorentz magnetic force, it generates inductive current i_c, and i_c generates contrast magnetic field B_L'

But lots of engineering practices anti-electromotive force shows in figure 10: magnetic line of force in motion cuts the metal conductor, metal electron is under Lorentz magnetic force $\boldsymbol{F} = q(-\boldsymbol{V}_B) \times \boldsymbol{B}$, and generates conductive current i_C, and magnetic field in negative direction B_L', so engineering practices anti-electromotive force proves the correctness of $\boldsymbol{F} = q(-\boldsymbol{V}_B) \times \boldsymbol{B}$ in figure 10. Compare figure 9 and 10, you can tell the truth from wrong.

3）About Faraday's law

Faraday's law is: magnetic flux of closed coil changes and generates electromotive force on the coil. But the following experiment is contrast. See figure 11 and 13.

For Experiment in figure 11: Closed conductor loop *abcd* is in even magnetic field, lead in *ab* is in a half-opened shielding box, and this box is insulated with closed conductor, lead in *cd* exposes outside magnetic field. Length of *ab* and *cd* is the same, conductor loop and shielding box

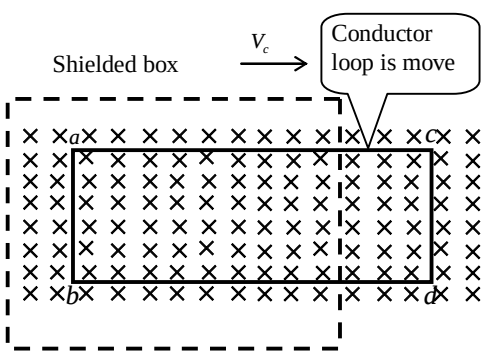

Figure 11 Shielding box and conductor loop move towards right

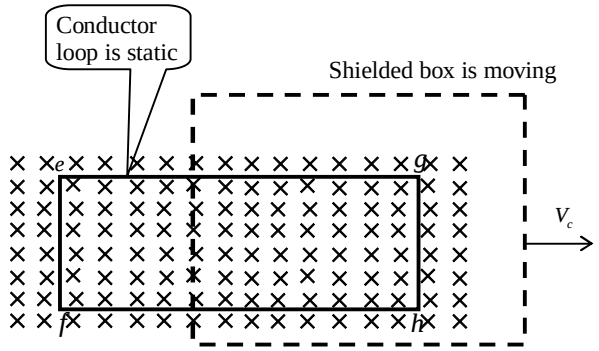

Figure 12 Conductor loop is static and Shielding box is moving

move towards right. It is obvious that magnetic flux of conductor loop in this experiment doesn't change, according to Faraday's law, there is no inductive current in conductor loop. But in fact,metal electron in *cd* cuts magnetic line of force, and generates inductive current, current multiplying conductor essential resistance get electromotive force.

For Experiment in figure 12: Closed conductor loop *efgh* is in even magnetic field, lead in *gh* is in a half-opened shielding box, and this box is insulated with closed conductor, lead in *ef* exposes outside magnetic field. Here conductor loop *efgh* and shielding box are static. According to Faraday's law, there is no inductive current in conductor loop. But in fact, metal electron in *cd* cuts

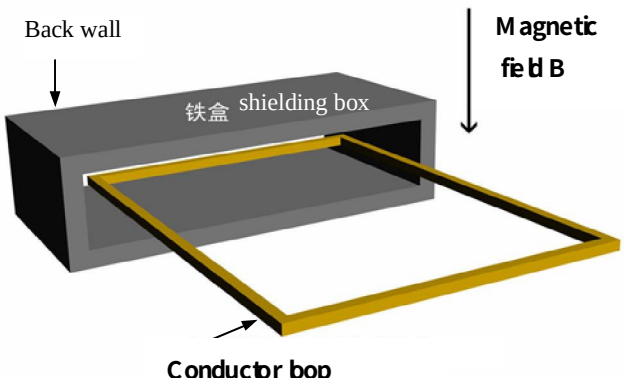

Figure 13 Cenzhi Teng's shielding box

magnetic line of force, and generates inductive current, current multiplying conductor essential resistance get electromotive force.

Compare and analyze the two experiments in figure 11 and 12, we can get the conclusion: inductive current on the closed conductor and magnetic flux in the loop have no relation, inducted

current depends on Lorentz magnetic force ---- cutting between metal electron and magnetic line of force..Here, figure 13 is form structure of magnetic shielding box.

4)About relativity electromagnetism

Relativity electromagnetism describes electromagnetic induction problem, that is relativity's $\boldsymbol{E}_{\perp}^{'}=\frac{1}{\sqrt{1-\beta}}\boldsymbol{V}\times\boldsymbol{B}_{\perp}$, magnetic field generates electric field while moving in the free space, according to right-hand rule of vector operation, direction of $\boldsymbol{E}_{\perp}^{'}$ should be $\boldsymbol{E}_{\perp}^{'}=\boldsymbol{E}_{y}$, refer to figure 6. But the experiment proves that: current direction of conductor defined by Einstein $\boldsymbol{E}_{y}$ is not consistent with the experimental result.

Relativity likes to discuss high speed movement, as shown in figure 14. Time-varying magnetic field radiated by time-varying current radiates towards left at the high speed c_0. According to relativity, electric field strength endured by metal conductor is $\boldsymbol{E}_{\perp}^{'}=\frac{1}{\sqrt{1-\beta}}\boldsymbol{V}\times\boldsymbol{B}_{\perp}=\infty$. Actually, motion speed of time-varying magnetic field is light velocity c_0. It is obvious that relativity electromagnetism is inconsistent with objective fact.

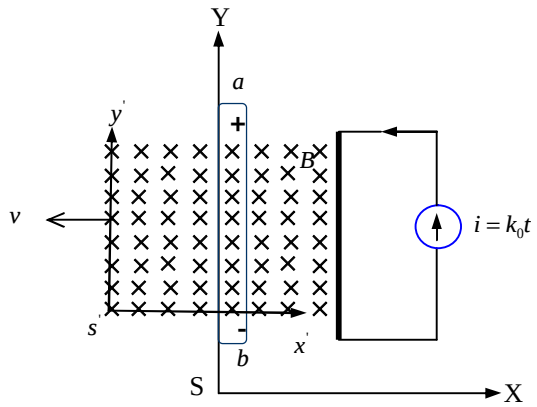

Figure 14 Magnetic line of force radiates at the light velocity c_0 and cuts metal electron

In a word, for the cutting experiment between the same coil and magnetic line of force, physical essences of these four theories are different. Is Unification Force right or Unification Field right? From above 8 experiments we can see: only General Lorentz magnetic force can explain the entire electromagnetic induction phenomenon totally, other theories only describe specific conditions, and are viewed as phenomenon or false image. So we can say there is dispute in electromagnetic induction.

2.3 Time-Space Dispute in Human Practice

Einstein published relativity and emphasized that "talking about absolute space is meaningless, the difference of mechanics caused by earth rotation is tiny; according to

Maxwell electrodynamics, when magnet moves in the space, and it generates inductive electric field, so there is current in the coil; when magnet moves in the space, and it doesn't generate inductive electric field, but there is still current in the coil, so the space is not symmetrical (which is called principle of relativity). … ; James' experiment showed that the motion relative to Ether is measurable, but Michelson-Morley experiment showed that the motion relative to Ether is immeasurable, we can suppose that light velocity is constant (which is called principle of constancy of light velocity)…". So the special relativity thinks that: size in motion will be compressed, and clock in motion will expand.

1) Relativity violates nature.

Einstein's two bases are wrong, that is: principle of constancy of light velocity is wrong, relativity principle is wrong, as stated in the book. We all know that moon rotates around the earth, moon in 16th of the 1st lunar moth （Calendar in China） is round, but relativists think it is oval, because relativists think that long axis is in motion direction and compressed to be round due to its motion. The planet shot by astronomer is round, but the relativist always thinks that it is because of compression. Planet has revolution and rotation, so the relativist thinks: long axis and short axis of planet are changeable – diameter in motion direction becomes shorter, and diameter in vertical direction remains. Astronauts in space are always deformed according to relativity, sometimes shorter, sometimes higher, sometimes fatter, and sometimes thinner. Relativist on the turntable thinks that the turntable will be tighter with rotation, while relativist on the chack thinks that the chack will be looser with rotation. Since then, relativist will recalculate the circumference ratio which was once calculated based on Euclidean space. We all remember that triangle geometry in *Handbook of Mathematics* and calculous (Newton-Leibniz) are both obtained base on Euclidean space and absolute time space view, and they are proved through 500 years engineering practice. Suppose that "Riemann geometry" of Einstein and relative time space view are proved by engineering practice, relativists will rewrite recent *Handbook of Mathematics*. This means that relativists do not believe in human beings' thousands years of engineering practice.

2) Two relativists have two contradictory aspects.

Husband and wife are relativists; husband bought two identical golden watches. Husband says: dear wife, I'm often on business, and I have a large amount of excise, so my watch is slower. But he never thought his wife is an expect with more accomplishment in relativity, so wife says: dear husband, there is no absolute motion, only relative motion, take you as static system, and I am dynamic system, so my watch is slower. This is dispute and contradiction between the couple of relativists.

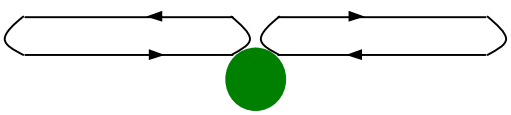

Figure 15 Twin brothers travel space at the same time

Twin brothers travel space at the same time, because relativity has no absolute static system or absolute dynamic system, there is only reference system, so every tourist can be set as static system or dynamic system. We notice that calculation of $\Delta t = \frac{\Delta t'}{\sqrt{1-\beta_2}}$ has no relation with movement direction. So, twinborn A says that twinborn B is younger, but twinborn B says that twinborn A is younger. For this paradox, no matter how relativity explains, absurdity exists.

3 Clocks slowing down is necessity of Newton's law.

Someone says: clocks flying around the earth will slow down, and it obtains flying inspection. Clock is measure attribute; and only time is natural attribute. In fact, Clocks flying around the earth slowing down is necessity of Newton's law. This book states that: according to Newton's law, the pendulum cycle of the earth's two poles is $T = 2\pi\sqrt{\frac{l}{g}}$, and according to Newton law of inertia, the pendulum cycle in earth equator line is $T = 2\pi\sqrt{\frac{l}{g - a_{离}}}$. Pendulum is placed in the elevator, when the elevator rises at acceleration, the pendulum speeds up; when the elevator falls at acceleration, the pendulum slows down. All the clocks generated by object's motion (including particle's motion) will be influenced by acceleration. The clock's speed depends on acceleration, not the constant linear motion. Clock is man-made measure attribute; it depends on measure tool and environment. But time is not clock, time is nature attribute; it is absolute and one-dimension elapsed, and Galilean transformation principle has proved that time is absolute and one-dimension elapsed for a long time.

4 Based on the bending space of Ether.

From Maxwell, everyone holds the opinion that light is in oscillatory propagation in the static Ether medium, no matter light source motion or measurer motion, propagation of light beam in Ether medium always equals to c_0, photon in place A is light source propagation in place C, and photon in place B is light source propagation in place D. The question is photon in place B observed in astronomic surveying in a certain time, see figure 16. So some one thinks: photon in place B

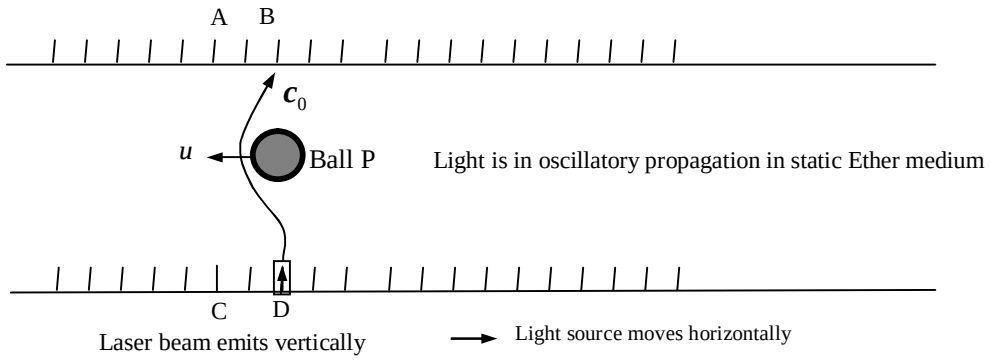

Figure 16 Because Light is in oscillatory propagation in static Ether medium, and light velocity has no relation with the motion of light source, laser bullet in place B is radiated from place D, so the light from D to B is curving, and then Ether space is considered to be curving.。

ispropagation in place D, shield ball P is on the DB line, then they boast: light source propagated from place D rotates central ball P and take an indirect way to reach place B (so called bending place). This is miracle publicized by relativists. But if we think over, we will find that emphasis on bending space is copy of Ether saying. Ether space is compressed to be the shape of a trumpet, which seems to be consistent with Riemann space of relativity.

5 Based on Riemann space of relativity.

Einstein said "light velocity has no relation with the motion of observer, and always equals to scalar c_0", see figure 17. In place A, photon received at $t = \Delta t \dfrac{\overset{\frown}{CA}}{c_0}$ is photon emitted by light source in

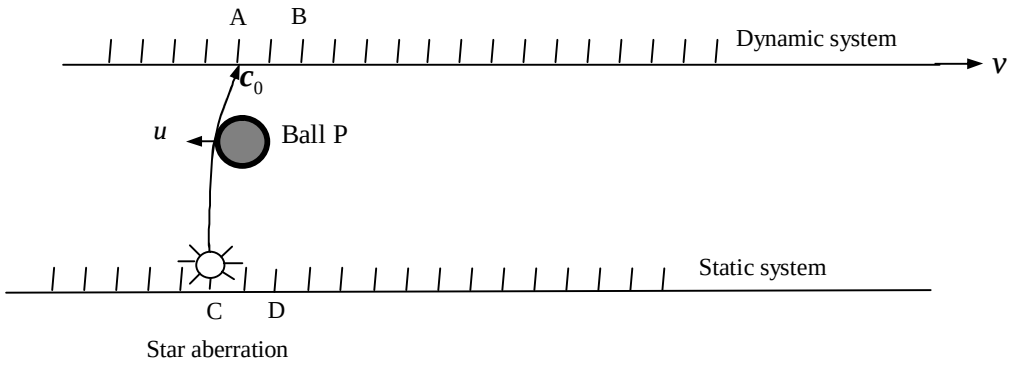

Figure 17 Relativity thinks that when light appears at $\Delta t = \dfrac{\overset{\frown}{CA}}{c_0}$, because ball P is in the $\overline{CA}$ line, so it thinks that light has to rotates ball P and takes more steps, which means space is curving. (In order to strike the eye, it overstates dynamic system speed)

static system place C at $t = 0$, but ball P is in AC line, so light has to rotates ball P and takes more steps, which means space is curving. Take $t = \Delta t = \dfrac{\overset{\frown}{CA}}{c_0}$ to calculate time difference, so relativity explains the reason why Mercury procession value is advanced. It's amazing, but the following statement is not so.

6 Based on motion condition of light source in Qu Shi space.

Light velocity follows the motion of light source, see figure 18, AC is vertical line, BD is vertical line too. When $t = 0$, laser gun shoots a photon in place C, due to the motion of light source, when light source reaches to place D at $t = \Delta t$, laser bullet hits place B at the same time. The result is $\overline{CD} = \Delta t \cdot v$, $\overline{AC} = \Delta t \cdot c_0$, path of photon is $\overline{CB} = \Delta t \cdot c = \Delta t\sqrt{c_0^2 + v_x^2} = \sqrt{\overline{DB}^2 + \overline{CD}^2}$. There $\Delta t\sqrt{c_0^2 + v_x^2} = \sqrt{\overline{DB}^2 + \overline{CD}^2}$,obviously, due to $\boldsymbol{c} = \boldsymbol{c}_0 + \boldsymbol{v}$, when light source reaches place D at $t = \Delta t$, photon reaches place B. Although there is shield in DB line at Δt, photon (laser bullet) has

reached place B at Δt. This explanation is consistent with the following explanation based on Galliean principle.

Compare figure 17 and 18, what should be noticed is: first, light in place B is not radiated, and radiated by light source in place C before Δt; second: Ether dos not drag light beam, in fact, light wave moves with light source, which obeys Galilean principle of relativity (or vector superposition rule); third: Ether medium does not exist, light wave is radiated directly, and the relative velocity relative to radiation source is vector $\boldsymbol{c}_0$. Fourth, so called light bending and space bending are the same with relativity and Ether saying. This book thinks that relativity and Ether saying are both wrong. Believe or not, you can refute this book *Conclusion of Natural Science Principle*, as an intellectual, you should not turn a blind eye.

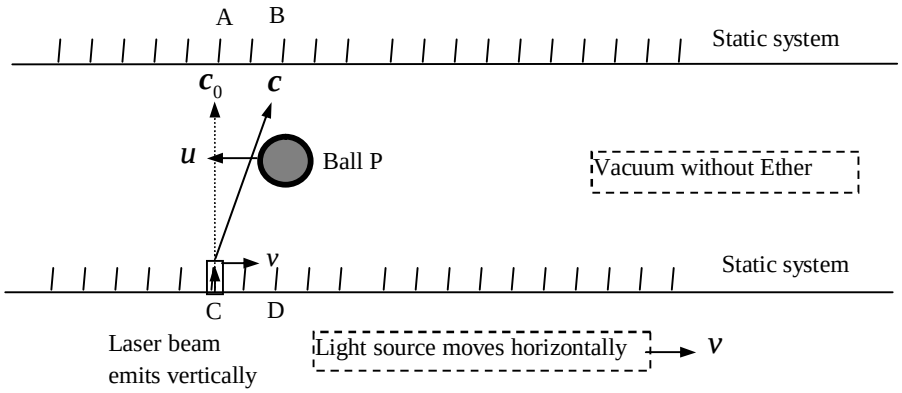

Figure 18 Light beam is not dragged by Ether, superposed light velocity is $\boldsymbol{c} = \boldsymbol{c}_0 + \boldsymbol{v}$, so photon emitted in place C can reach place B.

7) Based on motion condition of observer in absolute space

In figure 19, place C in static place points to the opposed radiation – photon (laser bullet) vertically, the hit path of dynamic system is d, needed time is $\Delta t = \dfrac{d}{c_0}$. At this time, photon (laser bullet) received by dynamic system target A is radiated at $t = o$, and received at Δt. Please note that distance that target A moves is $l_1 = \Delta t \cdot v$ (aims at the bow, but hits the stern), so the path hit by photon in the dynamic system is still distance d. At Δt, observer A moves left a distance of l_1, and P moves right a distance of $l_2 = \Delta t \cdot u$. Just because of these motions, distance line l_1 and l_2 overlap, so observer A mistakes pitch arc $\overset{\frown}{CA}$ for light path at Δt. In fact, Galilean principle of relativity can explain this problem. Please note: although shield P flies to CA vertical line at Δt , **but** photon (laser bullet) has reached target A. This explanation is consistent with James's observation experiment of star light. (James experiment shows that motion relative to absolute vacuum can be measured). What needs special attention is: spherical wave is a "shining" ray, which

ray is received by target A in motion at Δt needs to be calculated in detail. This explanation only introduces this problem in concept, the detailed calculation needs astronomers' research and.

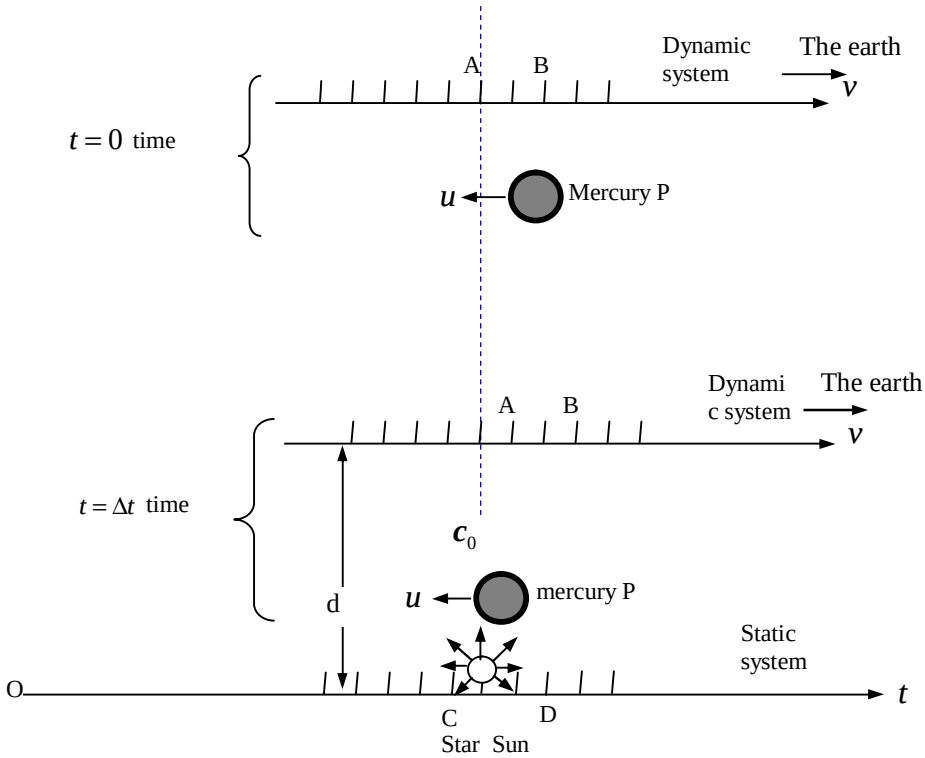

Figure 19 Path of photon radiated vertically is d , needed time is $\Delta t = \frac{d}{c_0}$

judgment, so I hope astronomers can set things straight of general relativity in accordance with Galilean principle of light velocity.In a word, time-space dispute is the biggest dispute in science community, and even in 6.5 billion people's mind. Einstein published relativity and emphasized that "talking about absolute space is meaningless, the difference of mechanics caused by earth rotation is tiny; according to Maxwell electrodynamics, when magnet moves in the space, and it generates inductive electric field, so there is current in the coil; when magnet moves in the space, and it doesn't generate inductive electric field, but there is still current in the coil, so the space is not symmetrical (which is called principle of relativity). … ; James' experiment showed that the motion relative to Ether is measurable, but Michelson-Morley experiment showed that the motion relative to Ether is immeasurable, we can suppose that light velocity is constant (which is called principle of constancy of light velocity)…". So the special relativity thinks that: size in motion will be compressed, and clock in motion will expand.

Motion of observer based on absolute space. Suppose that light source of static system is at point C at $t=0$, radiating brilliant starlight, while one light radiates along $\overline{CB}$, each position is different when in different moment, as shown in the following three figures.

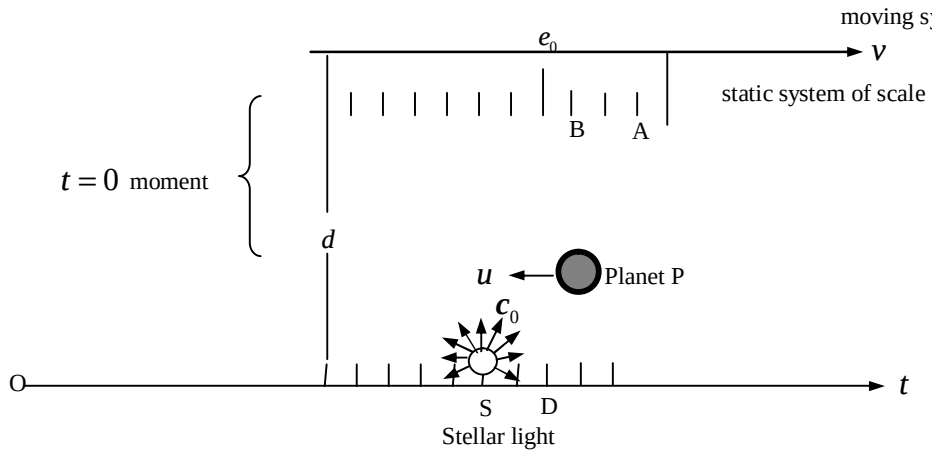

Figure 20 Positions of stellar S, planet P and measurer e in the static system when $t=0$

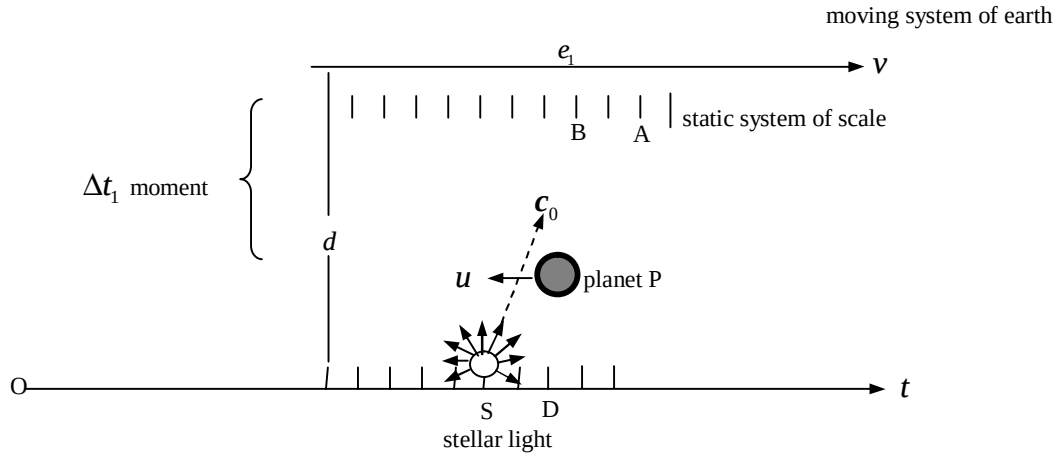

Figure 21 Positions of stellar S, planet P and measurer e in the static system when $t=\Delta t_1$

Above three figures are static systems supposing stellar as reference, one ray in brilliant stellar light emits directly (aims at) to point B in the static system, and hits point B at Δt_2. At this moment, observer of the earth moves to the right $l_1=\Delta t_2\cdot v$ at the speed of v with the earth, planet moves to the left $l_2=\Delta t_2\cdot u$ at the speed of u. Planet blocks it, but photon reaches to B at Δt_2.

Figure 20, 21 and 22 are exploded figures based on absolute cavity and should be correct. At Δt_2, observer on the point B sees that photon is radiated by one ray of starlight at $t=0$. Recently, there are three situations leading to illusion: 1. Mistake arc $\overset{\frown}{SB}$ as moving route of photon, which is so called “deflection of light”. 2. Mistake $t=\dfrac{\overline{S-e_1}}{c_0}$ as the moment that photon appears, or mistake

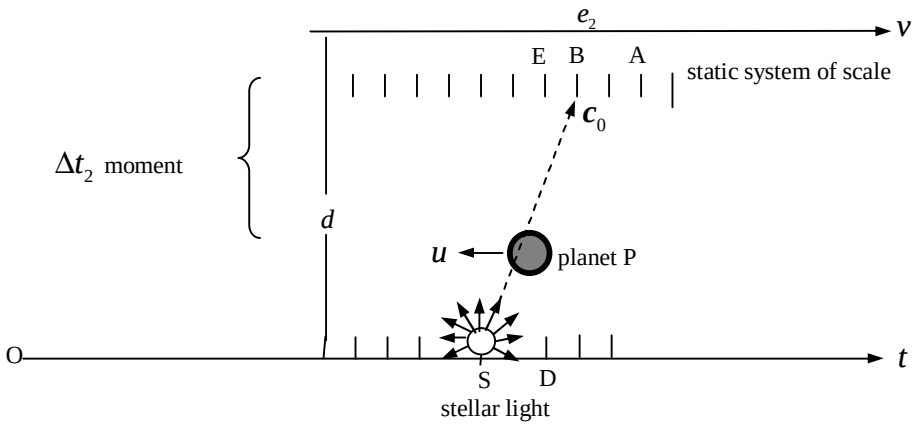

Figure 22 Positions of stellar S, planet P and measurer e in the static system at Δt_2

$t = \frac{\overline{S-e_0}}{c_0}$ as the moment that photon appears, then mistake precession value of mercury ahead of time. 3. Not consider calculation error caused by rotation of the earth. The Observatory is set up in earth surface, so its movement velocity is not revolution velocity v, but $\boldsymbol{V} = \boldsymbol{v} + \boldsymbol{\omega} \times \boldsymbol{r}$. From the view of ms level of calculation error, the author considers it as the third situation. Of course, astronomers still need to recalculate and observe. Anyway, weak error caused by single occasional situation can't be taken as the evidence of deflection of light.

What needs to be referred back is: when bulb or planet radiates brilliant light in static system, relative velocity of photon on every ray and the first wave peak relative to source is c_0, which means that the velocity of photon on every radiated ray moving along the ray is c_0, please refer to figure 23. One moving observer moves from right to left in parallel at the speed of v, and reaches to

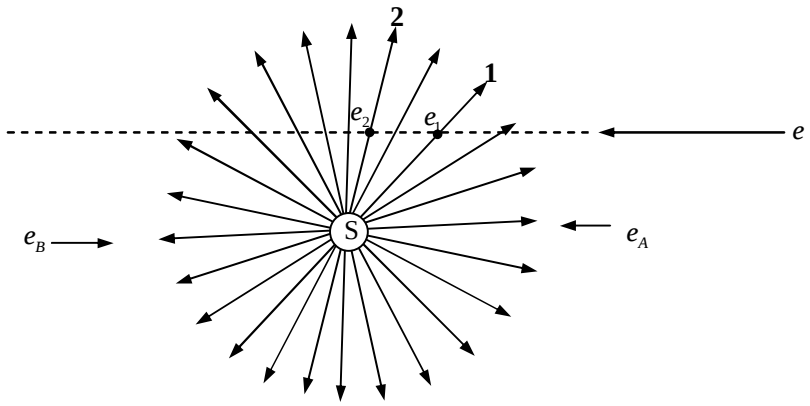

Figure 23 S emits light at $t = 0$, observer moves at $t = 0$, please figure out when seeing which light

e_1 at t_1, reaches to e_2 at t_2, so $\overline{se_1} = c_0 \Delta t_1$ and $\overline{se_2} = c_0 \Delta t_2$. But pay special attention to that: this is not assumption of constancy of light velocity. Because $\overline{se_1} \neq \overline{se_2}$, $\Delta t_1 \neq \Delta t_2$ and $t_2 \neq t_1$. Here, it is important to figure out when seeing the light. Calculate in detail: relative velocity c of observer e relative to each light is different, because the included angles of both vectors are different and the

observer is moving, so $t_2 \neq t_1$. For example, S and e start to time at $t = 0$, observer can see the relative velocity of light 1 and light 2, only the result calculated by superposition principle of light velocity in chapter 8 is correct (it belongs to superposition of two free vectors c_0 and v, please notice that ray 1 ≠ ray 2). Only when the observer e takes light source S as centre of the circle and begins circular movement, light velocity $c \equiv c_0$. This is physical concept and physical essence, otherwise ray 1 and ray 2 will be combined in one light. Typical case is that e_A and e_B can't see the first wave peak (the first photon) at the same time; but when the earth rotates around the sun in elliptical motion, according to superposition principle of light velocity, sun velocity observed by earth people has slight difference $\Delta c'$ with c_0, we can't mistake the error caused by $\Delta c'$ as "the reason of precession value of mercury ahead of time is space bending". Only when the observer e takes light source S as centre of the circle and begins circular movement, light velocity $c \equiv c_0$, and direction of light velocity is opposite to that of trail of moving person.

First, we point out Einstein's two basis are wrong as stated before. This book also proves that special relativity is ridiculous. We all know that moon rotates around the earth, at night of lunar January 16th （Calendar in China）, the moon is round, but in the view of relativity, the moon is oval, because relativity thinks that long axis is compressed to be round in the motion direction due to its motion. The planet shot by astronomer is round, but the relativist always thinks that it is because of compression. Planet has revolution and rotation, so the relativist thinks: long axis and short axis of planet are changeable – diameter in motion direction becomes shorter, and diameter in vertical direction remains. Astronauts in space are always deformed according to relativity, sometimes shorter, sometimes higher, sometimes fatter, and sometimes thinner. Relativist on the turntable thinks that the turntable will be tighter with rotation, while relativist on the chack thinks that the chack will be looser with rotation. Since then, relativist will recalculate the circumference ratio which was once calculated based on Euclidean space. We all remember that triangle geometry in *Handbook of Mathematics* and calculous (Newton-Leibniz) are both obtained base on Euclidean space and absolute time space view, and they are proved through 500 years engineering practice. Suppose that "Riemann geometry" of Einstein and relative time space view are proved by engineering practice, relativists will rewrite recent *Handbook of Mathematics*. This means that relativists do not believe in human beings' thousands years of engineering practice.

In a word, this book *Conclusion of Natural Science Principle* totally repudiates argument, thesis and conclusion of relativity. There are 10 chapters in this book, the former 5 chapters repudiate the first argument of relativity (which means that Einstein principle of relativity is repudiated); chapter 8 repudiates the second argument of relativity (which means that principle of constancy of light velocity is repudiated); chapter 6 repudiates thesis and conclusion of special relativity; chapter 7 repudiates the mathematic tools of special relativity; chapter 9 re-explains significant physical experiments in the history (including Michelson-Morley experiment and **Compton** effect); chapter 10 proves right time space view based on Newton's three laws and Galilean principle of relativity. I can assert: derivation in this book is verified and argumentation is powerful. I think this book is as worthy as Copernicus's heliocentric theory, it is quite valuable. So as the author, I hope physical scholars and physical teachers in college, academicians in ministry of mathematic – physical

science and philosophers can take some time to review this book while earning money, and I prefer that the Royal Society to judge this book.

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图书在版编目（CIP）数据

自然科学原理总结 / 曾清平著.—武汉：湖北省科学技术出版社，2009.6

ISBN978-7-5352-4288-4

Ⅰ. 自… Ⅱ. 曾… Ⅲ .自然科学理论 Ⅳ .NO

中国版本图书馆 CIP数据库核字（2009）第 050418号

责任编辑：李海宁

责任校对蒋静
封面设计喻杨

出版发行：湖北省科学技术出版社 **电话** 027-87679468

地址：武汉市雄楚大街 268 **号** **邮编** 430070

（湖北出版文化城 B **座** 12-13 **层）**

网址：http//www.hbstp.com.cn

印刷：空军雷达学院第二次印刷 **邮编** 430019

电话 027-85965144

787*1096 1/16 18.50 **印张** 496 **千字**

2010 **年校对版** 2010 **年** 6 **月第二次印刷**

印数 1000 **册**

定价 55.00 **元**